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IN THE UNITED STATES DISTRICT COURT FOR THE

NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his)
capacity as ATTORNEY GENERAL)
OF THE STATE OF OKLAHOMA and)
OKLAHOMA SECRETARY OF THE   )
ENVIRONMENT C. MILES TOLBERT,)
in his capacity as the   )
TRUSTEE FOR NATURAL RESOURCES)
FOR THE STATE OF OKLAHOMA,   )
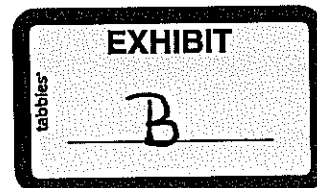   )
          Plaintiff,   )
)
vs.   ) 4:05-CV-00329-TCK-SAJ
)
TYSON FOODS, INC., et al,   )
)
          Defendants.   )

- -

THE VIDEOTAPED DEPOSITION OF

GORDON RAUSSER, PhD (Desvousges/Rausser),

produced as a witness on behalf of the Plaintiff in

the above styled and numbered cause, taken on the

13th day of May, 2009, in the City of Tulsa, County

of Tulsa, State of Oklahoma, before me, Lisa A.

Steinmeyer, a Certified Shorthand Reporter, duly

certified under and by virtue of the laws of the

State of Oklahoma.

EXHIBIT

B

APPEARANCES

FOR THE PLAINTIFFS: Ms. Ingrid Moll
    Attorney at Law
    20 Church Street
    17th Floor
    Hartford, CT 06103

FOR CARGILL: Mr. Colin Deihl
    Attorney at Law
    1700 Lincoln Street
    Suite 3200
    Denver, CO 80203
    -and-
    Mr. Eric Triplett
    (Via phone)

FOR SIMMONS FOODS: Ms. Vicki Bronson
    Attorney at Law
    211 East Dickson Street
    Fayetteville, AR 72701
    (Via phone)

FOR PETERSON FARMS: Mr. Craig Mirkes
    Attorney at Law
    320 South Boston
    Suite 700
    Tulsa, OK 74103

FOR GEORGE'S: Mr. James Graves
    Attorney at Law
    221 North College
    Fayetteville, AR 72701
    (Via phone)

FOR CAL-MAINE: Mr. Robert Sanders
    Attorney at Law
    2000 AmSouth Plaza
    P. O. Box 23059
    Jackson, MS 39225
    (Via phone)

2

ALSO PRESENT: Dr. Michael Hanemann

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(Whereupon, the deposition began at 9:02 a.m.)

VIDEOGRAPHER: We are on the Record for the deposition of Dr. Gordon Rausser. Today is May 13th, 2009. The time is 9:02 a.m. Counsel, please identify yourselves for the Record?   09:02AM

MS. MOLL: Ingrid Moll for the State of Oklahoma.

MR. DEIHL: Colin Deihl for Cargill.

MR. MIRKES: Craig Mirkes for Peterson   09:02AM
Farms.

VIDEOGRAPHER: And on the phone, please?

MR. TRIPLETT: Eric Triplett for Cargill.

MS. BRONSON: Vicki Bronson for Simmons
Foods.   09:02AM

MR. SANDERS: Bob Sanders for the Cal-Maine
defendants.

VIDEOGRAPHER: Thank you. You may swear in
the witness.

GORDON RAUSSER, PhD
having first been duly sworn to testify the truth,
the whole truth and nothing but the truth, testified
as follows:

DIRECT EXAMINATION
BY MS. MOLL: 09:02AM

5

1 Q Good morning, Dr. Rausser.	must be verbal so that they can be taken down by the
2 A Good morning.	court reporter. Is that fair?
3 Q My name is Ingrid Moll. I represent the State	A Yes.
4 of Oklahoma. Would you please state your name for	Q Okay. Is there any reason why you would not
5 the Record? 09:02AM	be able to give accurate testimony today, for 09:05AM
6 A Gordon Rausser.	example, being on any kind of medication?
7 Q What is your home and work address?	A No, but I'd be a lot more comfortable if my
8 A My home address is 661 San Luis Road, Berkley,	colleague was not in the room, but aside from that,
9 California 94707. My work address is 230B Giannini	I'll get past it.
10 Hall, University of California. 09:03AM	MR. SANDERS: Ingrid? 09:05AM
11 COURT REPORTER: What was the street name?	MS. MOLL: Yes.
12 A It's University of California Berkley. We	MR. SANDERS: This is Bob Sanders. I'm
13 don't have street names.	sorry to interrupt, but we're just getting bits and
14 COURT REPORTER: 230B –	pieces of what you all are saying. Can you all move
15 A Giannini Hall, 230B Giannini Hall.	the phone a little closer to the both of you? 09:05AM
16 COURT REPORTER: Giannini?	MS. MOLL: We will.
17 A Oh, you want the spelling of Giannini?	MR. DEIHL: That's as close as we can it,
18 COURT REPORTER: I do.	so see if this works better.
19 A Give her the spelling, Michael. Make yourself	MR. SANDERS: That's working a lot better
20 useful. G-I-A-N-N-I-N-I.	so far. 09:06AM
21 COURT REPORTER: Thank you.	MR. DEIHL: That's because it's right in
22 A Berkeley, California, and the ZIP Code is	front of me, but let's see if you can hear the
23 94720.	witness and Ingrid.
24 Q Dr. Rausser, I'm going to ask you, if you	Q Dr. Rausser, have you ever testified at trial
25 wouldn't mind, to keep your voice up, not only for 09:03AM	before? 09:06AM
6	8

1 the benefit of the court reporter but for myself	A Yes.
2 also.	Q How many times?
3 A Okay.	A Over what period?
4 Q Have you been deposed before?	Q Over your career.
5 A Yes. 09:03AM	A At least fifty times, perhaps as much as a 09:06AM
6 Q How many times?	hundred times.
7 A A large number of times. More than a hundred,	Q Okay, and how about in the last five years?
8 less than 300.	A Approximately twenty.
9 Q How about in the last ten years?	Q Do you know whether those matters are
10 A Approximately a hundred. 09:04AM	identified in the materials that you turned over in 09:06AM
11 Q Are those depositions identified in the	this case?
12 materials that you produced in this matter to your	A It's my understanding that they were not.
13 knowledge?	Q What did you do to prepare for your deposition
14 A No.	here today?
15 Q What are your E-mail addresses? 09:04AM	A I met with staff that worked on this matter 09:07AM
16 A I have two E-mail addresses. First at the	under my direction. I had a conference call with my
17 university it's rausser@are.berkley.edu, and my	co-author, Bill Desvousges. I met with counsel
18 business it is rausser@onpointanalytics.com –	yesterday for most of the day. Over the course of
19 grausser, did I say grausser?	the last week I prepared my deposition binders,
20 Q Thank you. Because you've been deposed 09:04AM	which are here that I brought along with me to the 09:07AM
21 before, I'll just quickly cover the ground rules for	deposition, and that took approximately a week to
22 today. For the benefit of the court reporter and	put that material together.
23 each other, we can't speak over one another. So I	Q Anything else?
24 would kindly ask let me finish my question until you	A With respect to the preparation for my
25 begin your answer, and all responses, of course, 09:05AM	deposition, none that I can recall. 09:08AM
7	9

1 Q   Okay. You mentioned that you met with staff.
2 Who specifically did you meet with?
3 A   With Lisa Keating, with Joanne Lee and with
4 Laura Craft and with John Galindo.
5 Q   Okay. Who is Joanne Lee?   09:08AM
6 A   Joanne Lee is a PhD student at UC Berkley, who
7 has completed all of her course work. She is
8 also — has the equivalent of a PhD in course work
9 in mathematical statistics. She is an expert in
10 non-parametric and parametric methodologies, and she   09:09AM
11 is an employee at this point of OnPoint Analytics.
12 Q   Who is Lisa Keating?
13 A   Lisa Keating is an economist, who has a
14 masters degree from University of Washington Seattle
15 and she, too, is an employee of OnPoint Analytics.   09:09AM
16 She's been employed by OnPoint Analytics for
17 approximately three or four years.
18 Q   And how about Laura Craft?
19 A   Laura Craft is the president of OnPoint
20 Analytics. She has formal training in financial   09:09AM
21 economics. In addition, a law degree.
22 Q   And Mr. Galindo?
23 A   He is a research assistant, who has a bachelor
24 and perhaps a master degree at this point in
25 economics.   09:10AM

10

1 Q   And he's employed by OnPoint?
2 A   Yes.
3 Q   You mentioned that you had a conference call
4 in preparation for today with Dr. Desvousges; is
5 that correct?   09:10AM
6 A   Correct.
7 Q   When did that occur?
8 A   There were two separate conversations. One
9 was the latter part of last week, Thursday or
10 Friday, I don't recall which day, and then a   09:10AM
11 subsequent call yesterday.
12 Q   And how long did those calls approximately
13 last?
14 A   The first call would have lasted 20 to 30
15 minutes. I presume you're going to ask me about the   09:11AM
16 next call.
17 Q   Correct.
18 A   But you haven't yet.
19 Q   How about the second call?
20 A   The second call was probably a bit longer,   09:11AM
21 maybe 40 minutes.
22 Q   In the first call what did you talk about?
23 A   We talked about some errata that I had
24 discovered, and we also talked about the anticipated
25 questions that would arise at both his deposition   09:12AM

11

and mine with regard to collaboration, who wrote
what, who provided the leadership for which
sections, and we visited in terms of our subjective
views of who did what work.
Q   And in the second call, the one yesterday,   09:12AM
what was the subject matter of that call?
A   The subject matter of that call went to
passive use, and in particular, the discussion was
about any instances that he failed to voice in which
he could recall in which there was validation of any   09:12AM
passive use, willingness to pay and/or damages
associated with that component of contingent
valuation.
Q   Okay, and did Dr. Desvousges identify any such
instances?   09:13AM
A   No.
Q   You also mentioned that you met yesterday with
counsel. Which attorneys are you speaking of?
A   Colin. I met with Colin. There was along the
way a telephone conference, a brief one, with his   09:13AM
colleague, Eric Triplett. There was one other brief
conversation with Jay Jorgensen from Sidley Austin.
Q   Anything else?
A   Not that I recall.
Q   Okay. During the call with Mr. — while Mr.   09:14AM

12

Jorgensen was on the line, what did you talk about?
A   He was not on the line. He was there in the
flesh.
Q   Okay.
A   There was a brief conversation about a   09:14AM
deposition that was taking place at that point in
time and how it related to the CV report that Bill
Desvousges and I prepared.
Q   What questions did Mr. Jorgensen ask of you?
A   I don't recall him asking any specific   09:14AM
questions of me.
Q   Let me rephrase the question then.
A   Okay.
Q   What generally did you talk about with regard
to the deposition that he was referring to?   09:15AM
A   Apparently the deposition that was taking
place moved into the issue of whether the
respondents, whether those respondents, all they had
to have, as the plaintiff's experts who conducted
the CV study would suggest, a plausible remediation   09:15AM
plan, and whether if in the minds of the respondents
it was plausible, and the question naturally arises,
is it plausible for all of them or is it plausible
only for a subset of the sample population, and
apparently in the deposition that Jay Jorgensen was   09:16AM

13

4 (Pages 10 to 13)

1 engaged in, there were some statements by the	instead just selected pages from those documents.
2 scientist suggesting that the CV analysis and/or the	Q Okay. Dr. Rausser, you're being handed what's
3 individual respondents, if the remediation was not	been marked as deposition No. 1. Do you recognize
4 accepted as credible, that you couldn't rely on any	that document?
5 of the results of that CV. That's my recollection. 09:17AM	A Yes. 09:21AM
6 Q Did you provide any comments to Mr. Jorgensen	Q What is it?
7 on that issue?	A This is a copy of my academic CV, and I
8 A Yes.	believe it is probably as of two months ago or when
9 Q What were they?	the report was filed.
10 A One comment was that it was certainly my 09:17AM	Q What is now missing from it? 09:22AM
11 understanding that the injury had to be accurately	A A few of the refereed journal publications,
12 represented before any results could be relied upon	accepted for publication.
13 from the CV study. Moreover, the plausibility	Q Can you identify those for me?
14 argument – I did not find and do not find the	A Yes. At the bottom of Page 13, there's a
15 plausibility argument acceptable, particularly given 09:17AM	reference to an article, Complementarities and 09:23AM
16 the debriefings that took place and the	Spillovers in Mergers: Empirical Investigation
17 representations of a number of respondents who did	Using Patent Data. That has now been accepted for
18 not believe it was plausible.	publication.
19 Q Okay. Other than the responses that you've	Q Any other changes?
20 just mentioned, on what else do you base your view 09:18AM	A Yes. There's one other article that has also 09:24AM
21 concerning the plausibility.	been accepted for publication that doesn't appear on
22 A Now we're moving beyond my conversation with	this CV.
23 Jay Jorgensen?	Q And what is that?
24 Q Correct.	A It's a paper on nutrition policy that is
25 A Any given respondent who has the view that a 09:18AM	forthcoming in food economics. 09:24AM
14	16

1 proposed remediation plan is not workable and cannot	Q Anything else?
2 achieve the stated purpose is going to have a much	A Yes. There is a book that has been accepted
3 different preference, a much different willingness	for publication at Cambridge Press that is now
4 to pay than one who does.	forthcoming.
5 Q Okay. We'll return to this a little bit 09:19AM	Q What page is that identified at? 09:24AM
6 later. In terms of your deposition preparation, how	A That is identified on Page 15 at the top, the
7 many hours in the aggregate do you think you've	second entry at the top of that page.
8 spent?	Q Any other changes?
9 A Just in preparation?	A Yes. There is a joint paper with Gerard
10 Q Correct. 09:20AM	Roland that isn't on this resumT that is forthcoming 09:25AM
11 A More than 25, less than 50.	as a chapter in a book on market distortions.
12 Q You mentioned that you prepared deposition	Q Any others?
13 binders. Are those the ones that are to your right?	A That's what I recall.
14 A Yes.	Q Dr. Rausser, you've been handed what's been
15 Q Okay, and what are the contents of those 09:20AM	marked as Exhibit 2. Do you recognize this? 09:26AM
16 binders?	A Yes. This is my jointly authored report with
17 A The contents of those binders is material that	Bill Desvousges without the appendices.
18 I relied upon or that Bill and I relied upon in the	Q I'd like for you to walk me through who worked
19 preparation of the report. They are tabbed, and	on each segment of the report, and this version does
20 each citation in the report that we relied upon has 09:20AM	not have a table of contents. I see that you've 09:27AM
21 a corresponding tab in these binders that give the	brought one with you. So if we could mark that as
22 corresponding document, whether it be a refereed	an exhibit, I'd appreciate it. So can you tell me,
23 journal article or some discovery document contained	Dr. Rausser, what is Exhibit 3?
24 within that tab, not the entire document because	A Exhibit 3 gives -- in preparation for today's
25 otherwise it would stack up to the ceiling but 09:21AM	deposition, along with preparing the binders and 09:28AM
15	17

1 meeting with staff and counsel, I typically have a
2 table of contents in all my reports, and for
3 whatever complicated reasons, one wasn't prepared
4 here. So I prepared it in large part because given
5 the breadth of the report, when I was looking for   09:28AM
6 some specific analysis and/or conclusion, the
7 transaction costs were too high. So I prepared the
8 table of contents to facilitate that search process.
9 Q   So using your table of contents as a guide, if
10 you could walk me through who on the team worked on   09:28AM
11 the different sections.
12 A   Certainly. Bill and I worked on the first
13 section, the Introduction and Summary of Opinions.
14 With regard to the Recreation Use Analysis, Bill and
15 I collaborated on that, with Bill taking the   09:29AM
16 leadership in terms of drafting the results. In the
17 case of Section 3, Analyzing Real Estate Property
18 Values, this was done by myself, and Lisa Keating
19 worked with me directly on preparing that analysis.
20 There were a number of conversations with Bill along   09:29AM
21 the way. He certainly had comments. I drafted the
22 initial version of Section 3, but he made a number
23 of valuable suggestions, comments, criticisms for
24 improving the presentation.
25   Section 4 on the Critique of the Contingent   09:30AM

                          18

1 Valuation Survey performed by Stratus in this
2 matter, this is more difficult because there was no
3 assigned leadership that had control over or had
4 point control, I wouldn't characterize it as total
5 control, but point control over a particular   09:30AM
6 section. This was jointly drafted by both Bill and
7 myself, and the work that was done also benefitted
8 on my end from the staff which I supervised, Lisa
9 Keating in particular. Laura Craft certainly helped
10 with regard to simplifying and improving the quality   09:31AM
11 of the communication. John Galindo would have had
12 some involvement in parts of this draft. Moreover,
13 another part-time employee of OnPoint Analytics had
14 done some work on Section 4.4.1, the scope test in
15 particular.   09:32AM
16 Q   And who is that employee?
17 A   Yanay Farja and -- yes, I think that covers
18 Section 4.
19 Q   How about Section 5?
20 A   Section 5, this was jointly -- the task list   09:32AM
21 for Section 5 was jointly determined by Bill and
22 myself, and it was implemented by my staff under my
23 direction, and in particular both Joanne Lee and
24 Lisa Keating worked with me on the draft of Section
25 5.   09:33AM

                          19

1 Q   You mentioned --
2 A   With comments, suggestions from Bill at every
3 step of the way.
4 Q   You mentioned a task list was jointly
5 determined by you and Dr. Desvousges; is that   09:33AM
6 correct?
7 A   Correct.
8 Q   Was that in written form?
9 A   No.
10 Q   Do you recall the tasks that were on that list   09:33AM
11 and how they were divvied up?
12 A   I do. Every task that you see here are the
13 tasks that we discussed, and it was divvied up to me
14 to implement and complete those tasks, at least in
15 terms of the first step in that implementation.   09:33AM
16 Bill, of course, responded to it and asked for
17 further clarification or looking more deeply into a
18 particular task that we had jointly set up.
19 Q   Then moving on to Chapter 6.
20 A   Chapter 6 was very straightforward. Bill and   09:34AM
21 I wrote that realtime on a WebEx.
22 Q   Okay. How about Chapter 7?
23 A   Chapter 7, Bill and I had joint discussions
24 about this, and he took the leadership with regard
25 to drafting this section and the assessments and   09:34AM

                          20

1 conclusions that appear in that section.
2 Q   Then with regard to the appendices, walk me
3 through that same way.
4 A   With respect to Appendix A, Bill prepared a
5 first draft, put it up on his server. We -- my   09:35AM
6 staff under my supervision and I added some
7 additional material to it. He, Bill, in turn
8 prepared the final draft of that appendix.
9 Q   Was Appendix A and the work that's represented
10 there done in connection with this expert report   09:36AM
11 such that you and Dr. Desvousges received
12 compensation for preparing it?
13 A   I did, and I'd be speculating if I answered
14 for Bill.
15 Q   Okay. How about Appendix B?   09:36AM
16 A   Appendix B, that was prepared by me, and in
17 particular Yanay was tasked with that particular
18 appendix, and he prepared under my supervision the
19 initial draft of Appendix B. That was submitted,
20 once again or placed on the protected server, Bill's   09:36AM
21 protected server, and Bill in turn collaborated in
22 preparing the final draft of that Appendix B.
23 Q   How about Appendix C?
24 A   Appendix C was prepared initially by myself
25 and Joanne Lee and that -- the process was the same.   09:37AM

                          21

1 It was placed on Bill's server. Bill made a number	1 A I'm having difficulty with your question. I
2 of comments and suggestions, and we probably went	2 just informed you that I haven't seen this letter
3 through two or three iterations before we reached	3 before. So I have no anticipations, and I've had no
4 the final draft on that section.	4 discussions with counsel about what I will be
5 Q How about Appendix D? 09:38AM	5 testifying to. 09:43AM
6 A Appendix D is a little more complicated. Bill	6 Q Okay. What conclusions have you reached
7 and I worked together with regard to the recoded	7 regarding statistical and econometric analyses and
8 data, and there was a fair amount of telephone	8 the results therefrom?
9 communication with respect to which categories were	9 A I think you'll find them in the report itself.
10 eligible for recoding. We completed that process, 09:38AM	10 In particular, if you look at the executive summary, 09:43AM
11 and then with regard to the statistical and	11 you'll find a number of results with respect to the
12 econometric analysis, Joanne and I took that over at	12 econometric analysis and/or statistical analysis.
13 that point and prepared the initial draft of	13 Q Am I correct then all of your conclusions
14 Appendix D, and it then went through another round	14 regarding statistics and econometric analyses are
15 of iterations based on Bill's comments and 09:38AM	15 summarized in this introduction here concerning the 09:44AM
16 suggestions.	16 report?
17 Q How about Appendix E?	17 A They are certainly summarized in the
18 A Appendix E would have been set at the time	18 introduction, but they are explained in some detail
19 that Bill and I determined the analytical dimensions	19 in Section 5 and the appendices that we discussed,
20 that we were going to look at. So it started with 09:39AM	20 in particular Appendices C, D and E. 09:44AM
21 that first set of meetings with Bill. Once we made	21 Q Do you consider yourself an expert in survey
22 that determination, then Joanne, Lisa and myself	22 research?
23 prepared an initial draft of Appendix E, which also	23 A I consider myself to be sufficiently competent
24 is based on the recoded data, which was jointly	24 to work with experts in survey research in a
25 determined between Bill and myself. That, too, was 09:40AM	25 collaborative way, but in terms of actually 09:45AM
22	24

1 placed on the server that I spoke about earlier, and	1 implementing a survey by myself, no.
2 then we had a WebEx where Bill and I jointly went	2 Q Have you published anything in the literature
3 through and revised the presentation with the	3 on survey research?
4 purpose of achieving greater clarity, not only with	4 A Yes.
5 regard to Appendix E but all of the other sections 09:40AM	5 Q What is that? 09:46AM
6 that we previously discussed.	6 A A paper that appears on Page 8 of my resumT,
7 Q Then finally how about Appendix F? Those are	7 Natural Resource Damages: Knowledge of Valuation
8 withdrawn. Those are just your CVs.	8 Techniques Useful As Liability Exposure Grows, which
9 A I was wondering. My table of contents is	9 appeared in Environmental Compliance & Litigation
10 incomplete, but it turns out to be complete. 09:41AM	10 Strategy. A book, two books actually, Development 09:46AM
11 Q I'm handing you Exhibit No. 4, which is a	11 and the National Interest. There were a number of
12 letter dated March 31st from Theresa Noble Hill to	12 surveys that were prepared under my direction while
13 Rick Garren and David Page. Have you seen this	13 I was chief economist at AID that were the basis for
14 letter before?	14 that particular publication. The World Bank
15 A No. 09:41AM	15 Monograph, Urban Malnutrition: Problem assessment 09:47AM
16 Q This letter indicates on the second page under	16 and Intervention Guidelines. There were
17 Paragraph No. 2, the defendants may further call at	17 approximately, give or take, 20 different surveys
18 trial Gordon Rausser to testify specifically as to	18 that were prepared as a basis for that publication.
19 the statistical and econometric analyses and the	19 I was responsible for the experimental design of
20 results therefrom in the report. Do you see that? 09:43AM	20 those surveys, the stratification of the population 09:48AM
21 A I do.	21 and the random selection with respect to each one of
22 Q What do you intend to testify about regarding	22 those strata.
23 the statistical and economic -- econometric, excuse	23 I have conducted surveys for the Chicago Board
24 me, analyses and the results therefrom in the	24 of Trade, the Chicago Mercantile Exchange, the New
25 report? 09:43AM	25 York Mercantile Exchange, surveys of both fiscal 09:49AM
23	25

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 1   operators in a particular industry who might have a
 2   hedging incentive for using newly designed futures
 3   contracts and investors/speculators who might have
 4   some interest in trading particular contracts.  I
 5   designed the survey with respect to the terms and          09:49AM
 6   conditions of those contracts, determining the
 7   amount of interest that might exist in the community
 8   of potential hedgers and speculators.  I have also
 9   presented the results of those surveys to the CFTC
10   with respect to regulatory examination of approval         09:50AM
11   or rejection of those specific proposed contracts.
12      Again, while chief economist at AID, there are
13   approximately 500 economists at the agency for
14   international development that are sprinkled
15   throughout the developing world, and they all are          09:51AM
16   directly — directly line reporting responsibilities
17   to the chief economist.  While I was there for two
18   years, protocols were set up with regard to surveys
19   that would be conducted in each of their respective
20   countries, and I worked with survey research                09:51AM
21   professionals in designing those surveys to provide
22   more information with regard to the documents that
23   are specific to each country, and those documents
24   with respect to the U. S. State Department and the
25   Agency For International Development are referred to        09:51AM
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 1   as CDS documents, Country Development Strategy
 2   documents, and there was a survey that lie behind
 3   each of those that I was responsible for designing
 4   and supervising the design and then implementing the
 5   survey.                                                    09:52AM
 6      Now your question went, I gather, just to my
 7   resumT.  I've also done other work in designing
 8   surveys, implementing the surveys that isn't
 9   reflected on this resumT.
10   Q   My question was, which articles had you                09:52AM
11   contributed to the literature.  So I think you
12   covered that.
13   A   Yeah.
14   Q   Do you consider yourself an expert in
15   cognitive psychology?                                      09:52AM
16   A   No.
17   Q   Do you consider yourself an expert in sampling
18   and sample design?
19   A   Yes.
20   Q   Okay.  Do you have an educational background            09:52AM
21   in those areas?
22   A   Yes.
23   Q   Describe that for me.
24   A   I did the equivalent of a masters degree in
25   mathematical statistics at the University of               09:53AM
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 1   California Davis.  I didn't actually finish the
 2   masters degree, but I took all the course work, and
 3   I did take course work in experimental design.
 4   Q   Have you contributed to the literature in
 5   sampling and sample design?                                09:53AM
 6   A   Only in terms of the applications, not in
 7   terms of the theory.
 8   Q   Do you consider yourself an expert in
 9   statistical design in bioassay experiments?
10   A   Bioassay experiments?                                   09:53AM
11   Q   Am I saying it wrong, bioassay?
12   A   No.  That's fine.  I just wanted to make sure
13   I had it right.  No.
14   Q   Going back to my question about sampling and
15   sample design, what is your experience in those            09:54AM
16   areas?
17   A   May I have the question back?  I want to make
18   sure I got it.
19      (Whereupon, the court reporter read
20   back the previous question.)                               09:54AM
21   A   Okay.  I think I've already explained some of
22   my experience in those areas.  With regard to the
23   work that was done while I was chief economist at
24   AID, those were all instances of sampling and
25   sampling design, all of those.  Moreover, the work         09:54AM
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Page 29:

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 1   that was done on behalf of various regulated
 2   exchanges, I believe I mentioned the Chicago
 3   Mercantile Exchange, Chicago Board of Trade, the New
 4   York Mercantile Exchange.  All of those would be
 5   experience in terms of sampling and the design.            09:55AM
 6      In addition, I have, along with my staff,
 7   worked in establishing sampling and design for the
 8   willingness to pay for particular product
 9   introductions, new product introductions, including
10   pharmaceutical launches, including various food            09:55AM
11   items, differentiated food items.  Those are
12   consulting engagements.
13      In litigation engagements, I have done
14   probably four studies in which the analysis focused
15   on the willingness to pay for products that might          09:56AM
16   have been offered to particular segments of the
17   population, but because of alleged discrimination
18   was not.
19   Q   In the work that you described with AID and
20   the different exchanges, was a sampling statistician       09:56AM
21   hired?
22   A   No.
23   Q   What about the matters that you described that
24   you've dealt with your staff concerning product
25   introductions?                                             09:57AM
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1   A   There's a separation there that I gave you.
2   One is consulting; the other is litigation. Which
3   one do you want?
4   Q   Both, please.
5   A   Both. In all of the consulting engagements,   09:57AM
6   no, a statistician was not hired.
7   Q   Okay.
8   A   We have statisticians on our staff and OnPoint
9   Analytics had them, had them on our staff while I
10 was at LECG, had them on our staff while I was at   09:57AM
11 Charles River Associates.
12   With respect to the litigation, the sampling
13 and the design was set by my firm under my
14 leadership, but there was always a survey research
15 organization that implemented the actual collection   09:57AM
16 of sample survey data.
17 Q   You mentioned that you have participated in
18 four CV studies; is that correct?
19 A   Uh-huh.
20 Q   Identify those for me.   09:58AM
21 A   One study focused on the allegations of
22 discrimination on the part of banks in providing
23 mortgages. Another focused on the unavailability of
24 insurance products in what was referred to as
25 red-lined districts. The red-lined districts were   09:58AM

30

1   typically in major cities throughout the United
2   States as alleged where an African American
3   community or a Hispanic community was not offered
4   these particular insurance products. That was the
5   allegation, and since there was no transactions in   09:59AM
6   these particular communities, we performed a CV
7   analysis of a sample of the population's willingness
8   to pay for the product if it had been available.
9   And, by the way, when I told you there was four of
10 those studies, it's actually more because we did   09:59AM
11 these analyses across seven cities in the United
12 States, each one being a separate design and a
13 separate sampling protocol.
14 Q   So I think you've identified two so far. What
15 were the other two?   10:00AM
16 A   I'm counting different than you. I said four.
17 I was talking about the discrete differences among
18 the designs. There was a different design. There
19 were the two that I referred to in terms of the
20 unavailability of either mortgage products or   10:00AM
21 insurance products, but then there were different
22 times at which these surveys were done in different
23 cities, and it's actually more than four. If you
24 count each city separately, it's something more like
25 twelve.   10:01AM

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1   Q   Okay, but there are no other CV studies that
2   you've worked on?
3   A   In a litigation context.
4   Q   In any context?
5   A   No, false. I've already explained to you the   10:01AM
6   other CV studies that I've done as a consultant
7   directly for companies that are looking at the
8   introduction of new products.
9   Q   And those were CV studies?
10 A   Yes.   10:01AM
11 Q   Have those studies been published or are they
12 otherwise available?
13 A   I seriously doubt that. First of all, I would
14 have to get authorization from the client. There is
15 protective orders that have been signed,   10:01AM
16 confidentiality agreements with respect to the
17 analysis. All of those engagements are companies
18 that would treat that information as proprietary.
19 Q   Are you referring to the studies --
20   MS. MOLL: I think we need to take time for   10:02AM
21 a tape change.
22   VIDEOGRAPHER: We're off the Record at
23 10:02 a.m.
24   (Following a short recess at 10:02
25 a.m., proceedings continued on the Record at 10:16

32

1   a.m.)
2   VIDEOGRAPHER: We're back on Record at
3   10:16 a.m.
4   Q   Dr. Rausser, when were you first approached to
5   work on damages in this matter?   10:16AM
6   A   How do we define approach? That is to say,
7   was it mentioned?
8   Q   When were you first contacted about this case
9   in terms of you being retained to work on the
10 damages piece?   10:17AM
11 A   I recall a brief conversation with Jay
12 Jorgensen sometime in the year 2008, and it would
13 probably be early in 2008.
14 Q   And what did Mr. Jorgensen ask you to do at
15 that point?   10:17AM
16 A   I think it was simply are you interested in
17 working on the damage analysis related to the
18 dispute between the State of Oklahoma, Arkansas and
19 the poultry industry.
20 Q   When did you first start working on the   10:18AM
21 damages piece of this case?
22 A   It wasn't until this year.
23 Q   Okay. What part of this year?
24 A   Late January, early February.
25 Q   Okay. Do you recall who contacted you?   10:18AM

33

1   A   Once again, I believe it was initially Jay
2   Jorgensen.
3   Q   And at that point what were you asked to do?
4   A   I was sent the Stratus study. I was asked to
5   review the Stratus study and, moreover, to set up a   10:18AM
6   joint meeting after the review with counsel and
7   Bill. That's my recollection.
8   Q   **Bill Desvousges?**
9   A   Yeah.
10   Q   **And did that joint meeting occur?**   10:19AM
11   A   It did.
12   Q   **Who was there?**
13   A   Bill was there. I was there, and there were a
14   few different voices on the telephone, one of which
15   at that point I would have recognized. Eric was on   10:19AM
16   the line.
17   Q   **Eric Triplett?**
18   A   Yes.
19   Q   **When did that meeting take place?**
20   A   Early February.   10:19AM
21   Q   **And where was it?**
22   A   Where was it?
23   Q   **Where was the meeting?**
24   A   In my case it was in my office. It was a
25   telephone conference call.   10:20AM

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1   Q   And my question was, why?
2   A   Because at that juncture, I didn't have enough
3   information about the assessment of the report and,
4   moreover, what I was going to do versus what Bill
5   was going to do.   10:22AM
6   Q   Okay. So at no time was a plan or budget
7   provided?
8   A   In written form?
9   Q   Yes.
10   A   No. In verbal form, yes.   10:22AM
11   Q   In verbal form what was the plan that you
12   provided?
13   A   The plan that was the joint collaboration with
14   Bill with regard to the analysis that appears in
15   Exhibit 2 and, secondly, a preliminary estimate of   10:22AM
16   the cost that OnPoint Analytics and I would incur in
17   carrying out our collaboration on that point.
18   Q   What was that preliminary estimate?
19   A   My recollection is the preliminary estimate
20   was 75 or $80,000.   10:23AM
21   Q   Okay. In relating to the damages piece here,
22   do you know how much you and OnPoint have billed on
23   this matter?
24   A   No.
25   Q   Were you retained personally to work on the   10:23AM

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1   Q   What was discussed during that first -- during
2   that call?
3   A   Initially reactions to the Stratus report, a
4   number of comments. I made a number of comments.
5   Bill made a number of comments. I don't recall any   10:20AM
6   comments from counsel. I'm sure there were but I
7   didn't take notes.
8   Q   I'm handing you what's been marked as Exhibit
9   5. If you look at the bottom of this E-mail chain,
10   there's an E-mail from Vicki Bronson to Lisa   10:21AM
11   Keating, and the E-mail says attached is the report
12   from Stratus. Please have Gordon take a look at
13   this and provide a plan and budget for responding.
14   Do you see that?
15   A   I do.   10:21AM
16   Q   Did you provide a plan and a budget?
17   A   No.
18   Q   Why not?
19   A   I believe that at the time -- oh, you're
20   asking me did I at any point in time do a plan and   10:21AM
21   budget?
22   Q   Well, following this E-mail from Vicki
23   Bronson, was a plan and a budget for responding to
24   the Stratus report submitted?
25   A   No.   10:21AM

35

1   damages piece or is your retention through OnPoint?
2   A   The latter.
3   Q   Okay. When was the verbal plan that you
4   described given to counsel?
5   A   Sometime in February.   10:24AM
6   Q   Do you currently teach?
7   A   Yes.
8   Q   And where do you teach?
9   A   University of California Berkley.
10   Q   And how many courses are you teaching this   10:24AM
11   semester?
12   A   One.
13   Q   What is that?
14   A   It's quantitative public policy.
15   Q   Dr. Rausser, you've been handed what's been   10:24AM
16   marked as Exhibit 6, which is an E-mail chain that
17   starts with an E-mail from Eric Triplett to you on
18   February 10th. Do you see that?
19   A   Yes.
20   Q   Mr. Triplett states in his E-mail, attached   10:25AM
21   please find Stratus' past injuries report for your
22   review; do you see that?
23   A   I do.
24   Q   What were you asked to do with regard to the
25   past injuries report?   10:26AM

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1 A To review it and discuss it with Bill.	MR. DEIHL: For the Record, I received an
2 Q And when did your analysis of the past	E-mail that the people on the phone can't hear you,
3 injuries report occur?	Ingrid. They can hear the witness but they can't
4 A When did it occur?	hear you, so if you could speak up, that would be
5 Q Yes. 10:26AM	helpful. 10:30AM
6 A Mid to late February.	MS. MOLL: I will speak up.
7 Q Okay. Between mid to late February and March	A I did spend some time with my family at my
8 31st of this year, what other projects were you	ranch because we have a serious algae problem in a
9 working on?	large manmade lake on that particular ranch, and it
10 A What other projects? 10:26AM	turns out that I attempted to convince my 10:31AM
11 Q Well, you've mentioned that you were teaching	grandchildren that if their parents were adverse to
12 a course at the university.	the use of chemicals, we, they in particular, could
13 A Right.	enter into that large pond and remove the algae by
14 Q And that you've done work in this case in that	hand. I don't or can't represent that I was
15 time frame; correct? 10:27AM	successful in that regard, but I did spend some time 10:31AM
16 A Uh-huh.	on it.
17 Q And my question is, were there other projects	Q Where's that ranch located?
18 that you were working on during that time?	MR. DEIHL: I object to the question on
19 A Define projects.	relevance. You can go ahead and answer.
20 Q Any work other than teaching and work in this 10:27AM	A It's located in Grass Valley. 10:31AM
21 case.	Q California?
22 A I have a number of PhD students who are	A Yes.
23 attempting to complete their dissertations, so that	Q Any other family projects that took up some
24 would be a group of projects, working with them in	time in that period?
25 facilitating what they must accomplish before the 10:27AM	MR. DEIHL: Object to the question. 10:32AM
38	40

1 dissertation is complete. Another set of projects,	A Not a major point, not a major part of the
2 there were probably two second year PhD students who	time, no.
3 were preparing econometric papers. That would be	Q Any other projects that you can think of?
4 another set of projects, helping them with regard to	A Yes. There were certain trial testimony, a
5 the econometric analysis that they were conducting. 10:28AM	major trial on patent infringement and patent 10:32AM
6 I am editor of The Annual Reviews of Resource	damages in Delaware in which I testified at trial.
7 Economics, and there are a number of papers that had	There were a few depositions, all of which, as I
8 to be reviewed and evaluated and sent back to the	recall, went either to economic damages, liability
9 authors for revision before being accepted for	assessments with regard to patent infringement or
10 publication in the next volume of The Annual Review 10:28AM	alleged patent infringements. I worked with the 10:33AM
11 of Resource Economics. Work on a joint publication	Department of Justice on a statistical analysis of
12 with a colleague in France at the University of	alleged discrimination of the FSFSA against Native
13 Toulouse, work on a paper with a colleague at	Americans. That's what I recall as I sit here, not
14 Berkley on rational exaggeration, work with the	that there aren't other projects, but I didn't
15 Federal Reserve, the New York Federal Reserve Bank 10:29AM	expect to elaborate how I'd spent my time over the 10:34AM
16 and the Department of Treasury with respect to	last five months or actually it was less than three
17 centralized clearing of OTC derivatives, work	months, right?
18 related to the same topic with the Chicago	Q Well, my question was for the period from your
19 Mercantile Exchange and PEAK6 investments. Other	time beginning to work on this project in February
20 projects relate to serving on the board of directors 10:30AM	through March 31st. The trial case or the trial 10:34AM
21 of a few start-up companies. We're talking about	that you mentioned in Delaware in which you offered
22 work projects. I don't have to include family	testimony, on whose behalf did you offer testimony?
23 projects, right, in my response?	A The defendant.
24 Q Well, if they took up a significant amount of	Q Okay, and who was that?
25 time, I'd like to hear about it. 10:30AM	A Par Pharmaceutical. 10:34AM
39	41

COURT REPORTER: Pardon me?

A   Par, P-A-R, Pharmaceutical.

Q   And do you know what the case name is?

A   No, but I can tell you the product. The product is Tramadol.   10:34AM

Q   How many depositions do you believe you gave during that period of time in February and March?

A   I don't recall, although there's a record of it with regard to the last four years of testimony. I don't recall.   10:35AM

Q   More than five?

A   I'd have to go back and look. Once again, we're talking about February through today; correct?

Q   February through March 31.

A   Through March 31?   10:35AM

Q   Uh-huh.

A   I'd have to go back and look.

Q   Okay. So the projects that you identified, did those include --

A   Okay. I'm going to have to take one of them   10:35AM off the table. I'm sorry for not listening more intently to your questions. The Tramadol trial was after March 31. It was in April, and there was another trial in April, too, that wouldn't count.

Q   Okay. Any other corrections to your answer,   10:36AM

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noting the March 31st cutoff?

A   There would have been less deposition testimony than what I implied in response because I thought the question went up until now but --

Q   Okay. Dr. Rausser, I'm handing you Exhibit 7,   10:36AM which is an E-mail to you -- excuse me, from you to Lisa Keating and Joanne Lee dated February 23rd. In this E-mail you state, Joanne and Lisa, here is our FTP site and then you provide a link there. Do you see that?   10:37AM

A   I do.

Q   Is that the server that you mentioned earlier that's maintained by Dr. Desvousges or his firm?

A   Yes.

Q   And what materials were maintained on that   10:37AM site?

A   A draft of the report.

Q   Anything else?

A   Datasets.

Q   Any other material?   10:38AM

A   Not to my knowledge.

Q   Have you produced all of your E-mails that you received or sent in this matter as of March 31, 2009?

A   So far as I know, yes.   10:38AM

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Q   Okay. Did you use both E-mail addresses that you gave to me earlier for purposes of your work in this case?

A   No.

Q   Which one did you use?   10:38AM

A   OnPoint Analytics.

Q   And do you believe that you have produced all of your considered materials on this matter as of March 31, 2009?

A   Yes.   10:39AM

Q   I'm handing you what's been marked as Exhibit 8. This is a letter to Claire Xidis from Colin Deihl dated May 12th. Have you seen this before?

A   Yes.

Q   Okay. Pages -- or I should say they have a   10:40AM two-page attachment. Were you involved in the preparation of the attachment?

A   Yes.

Q   And is this an errata to the tables that are identified in the cover letter to your expert report   10:40AM that you and Dr. Desvousges did?

A   Yes.

Q   Who discovered the fact that an errata sheet needed to be prepared?

A   I did.   10:40AM

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Q   And how did that come about?

A   It came about in reviewing the final version of the document in preparation for my deposition.

Q   Okay, and when did you find the errors?

A   It would have been last week sometime.   10:40AM

Q   Okay. As far as you know, are there any other errors in the Desvousges/Rausser report?

A   Define errors.

Q   Well, any errors in your view that would require an errata to be prepared.   10:41AM

A   No.

Q   Did you discuss the preparation of this errata with Dr. Desvousges?

A   I recall informing him. I don't recall discussing it with him.   10:42AM

Q   If you'll turn to Table 5.2 in your report, which is Exhibit 2, do you have it in front of you?

A   I do.

Q   Okay. Who initially prepared these tables?

A   These would have been initially prepared by   10:42AM Joanne Lee under my supervision, aside from the pasting that took place with respect to the confidence intervals when it was placed on the server that we just discussed, the FTP server.

Q   Okay, and can you just describe for me the   10:43AM

45

12 (Pages 42 to 45)

1 errors that you found and the corrections that you
2 made?
3 A   Certainly. If you look at the upper and lower
4 95 percent columns, you'll see there that those
5 confidence upper and lower bounds for 95 percent are   10:43AM
6 a repeat of the probability of yes given the bids
7 that appear in the first column, and that was a
8 pasting issue. Nothing should have been recorded in
9 those columns as reflected in the errata sheet,
10 Exhibit 8.   10:43AM
11 Q   Okay, and who prepared the confidence
12 intervals that appear on the Turbull row in the
13 initial chart in your expert report?
14 A   That, too, would have been done by Joanne Lee
15 under my supervision.   10:44AM
16 Q   And who prepared the confidence intervals that
17 appear elsewhere?
18 A   Appear elsewhere? You want to be more
19 specific?
20 Q   Well, in the other charts that appear in your   10:44AM
21 expert report.
22 A   With respect to Section 5, that once again
23 would be Joanne Lee under my supervision. With
24 respect to Section 3, that would have been Lisa
25 Keating under my supervision. With respect to   10:45AM

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1 Section 2, that would have been Bill and myself
2 under joint supervision of each other.
3 Q   If you'll turn with me in Exhibit 8, which is
4 the letter containing the errata, to the last page
5 where you see Tables C-2 and C-3. Do you have that   10:46AM
6 in front of you?
7 A   I do.
8 Q   Can you explain to me why there are confidence
9 intervals provided in the column under very and
10 extremely and not provided under the column not   10:46AM
11 slightly and moderately?
12 A   Yes. Under not slightly and moderately it's
13 not computable. The actual methodology for
14 computing those confidence intervals depend upon
15 computing a standard error using jackknife   10:46AM
16 methodology. That can be done as long as your
17 primary sampling units contain two or more, and for
18 the category not slightly moderately, you only have
19 one primary sampling unit, hence, you can't compute
20 the standard error. Since you can't compute the   10:47AM
21 standard error, you can't compute the confidence
22 intervals.
23 Q   And does that same explanation hold true for
24 Table C-3?
25 A   Yes.   10:47AM

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1 Q   Can you compute confidence intervals any other
2 way than the manner you just described?
3 A   Yes. There's a number of different bootstrap
4 methodologies could be used. We wanted to follow
5 the actual methodology that was used in the original   10:47AM
6 Stratus report, and they used the jackknife
7 methodology, and we wanted to stay with that to
8 achieve comparability.
9 Q   Okay. If you'll take out the report again,
10 which is Exhibit 2 and turn to Page 71. Do you have   10:48AM
11 that in front of you?
12 A   I do.
13 Q   Let me turn your attention to Table 4.7. Do
14 you see that there?
15 A   I do.   10:48AM
16 Q   If you look at the third and fourth rows for
17 base version and scope, do you see that? Under
18 standard error, or SE, both fields contain 11.34.
19 Do you see that?
20 A   On the standard error, you talking about the   10:48AM
21 SE column?
22 Q   Yes.
23 A   Yes.
24 Q   Is that a mistake that they are identical to
25 two decimal places there?   10:49AM

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1 A   I would have to go back and check. It may or
2 may not be.
3 Q   Okay, but it's plausible to you that they
4 would be the same?
5 A   It's possible.   10:49AM
6 Q   Who prepared Table 4.7?
7 A   My staff under my supervision did not work on
8 that table to my recollection. We certainly
9 evaluated it, but I don't recall my staff preparing
10 this table.   10:51AM
11 Q   Okay. So would that mean then that someone on
12 Dr. Desvousges's staff or Dr. Desvousges himself
13 prepared it?
14 A   It may or may not. I would have to go back
15 and check with my staff.   10:51AM
16 Q   Now, in this part of your report, you are
17 testing a null hypothesis for a scope test; correct?
18 A   Yes.
19 Q   And what is that null hypothesis?
20 A   The null hypothesis is that the willingness to   10:51AM
21 pay is lower than the willingness to pay for a
22 smaller injury and that you in effect avoided an
23 embedding problem.
24 Q   Is it your professional opinion as an
25 econometrician that the correct way to test this   10:52AM

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1 null hypothesis is to check whether the confidence
2 intervals overlap?
3 A   Well, I can represent to you that the
4 literature largely simply tests whether the
5 willingness to pay is less statistically for the   10:52AM
6 scope than it is for the base survey, but your
7 question goes to overlap. It could certainly be
8 less and there could be still overlapping confidence
9 intervals. The ideal situation is that the
10 probability distribution for the willingness to pay   10:53AM
11 for the base stochastically dominates the
12 probability distribution for the scope, but I don't
13 believe the literature has recognized that as a
14 viable criteria for determining whether there is a
15 distinction between the scope and the base survey.   10:53AM
16 Q   So the test, based on confidence intervals, is
17 not definitive; is that correct?
18 A   Define definitive.
19 Q   Accepted.
20 A   You don't accept hypotheses, not in   10:54AM
21 statistical methodology. You either reject or you
22 don't reject.
23 Q   Okay. Is it a valid test or invalid?
24 A   And which test are we talking about; my
25 stochastic dominance test or the tests that have   10:54AM

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1 been used in the literature?
2 Q   The one you used.
3 A   My stochastic dominance, yes, indeed.
4 Q   What about the test that's used in Table 4.7?
5 A   It's consistent with the literature.   10:55AM
6 Q   Okay, and what literature are you relying on?
7 A   The cumulative literature that we have cited
8 throughout our report that looks at scope tests to
9 determine whether in fact it does not reject the
10 hypothesis that the willingness to pay for the scope   10:55AM
11 is below the willingness to pay for the base.
12 Q   As a statistician, do you believe the test
13 based on overlapping confidence intervals is valid?
14 A   I believe it's informative. I'm — I have not
15 made an assessment about valid. It depends upon the   10:56AM
16 underlying facts.
17 Q   Let's shift gears to Chapter 3.
18 A   Okay.
19 Q   Now, in Chapter 3 of your report you describe
20 a hedonic model that you did in this case; correct?   10:57AM
21 A   Correct.
22 Q   And who worked on that?
23 A   I certainly worked on it. Lisa Keating worked
24 under my supervision.
25 Q   And what was Dr. Desvousges' role?   10:57AM

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1 A   Coming back to the task list and when we
2 initially set out the various tasks and what we were
3 going to accomplish, he certainly had a role with
4 regard to the hedonic methodology. We had a
5 discussion about that methodology and how it might   10:57AM
6 be implemented in the context of the damages that
7 might exist with regard to the phosphorus loading in
8 both Tenkiller Lake -- well, specifically Tenkiller
9 Lake because all of our discussion here went to
10 Tenkiller Lake. He subsequently had discussions   10:58AM
11 with Lisa and myself based on some preliminary
12 results that we had achieved and made some
13 suggestions, as I recall, about the base that was
14 selected, and then jointly drafted with me Section
15 3.   10:59AM
16 Q   Okay. With regard to the suggestions that Dr.
17 Desvousges had about the base, what do you recall
18 about his suggestions?
19 A   My recollection is in a call with Bill and
20 counsel, it was clear that we wanted a base for   10:59AM
21 which there was no phosphorus contamination, and as
22 a result, I believe Bill and/or counsel sent a map
23 to me that gave the representation within the State
24 of Oklahoma which watersheds were affected and
25 implicitly which watersheds were not affected by   11:00AM

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1 poultry operations.
2 Q   Who made the decision to use a hedonic model?
3 A   I did, jointly with Bill.
4 Q   And who selected the years 1995 to 2008?
5 A   I did.   11:00AM
6 Q   Why were those years selected?
7 A   Because it provided sufficient potential for
8 resolution of the estimated -- econometrically
9 estimated effects and because the data sources with
10 respect to actual transactions, actual sales   11:01AM
11 transactions were — as represented by the county
12 assessor's office, were much better back to 1995
13 than they were for earlier periods.
14 Q   Do you agree that when estimating a hedonic
15 regression model of house prices, the researcher   11:01AM
16 should have a good understanding of the housing
17 market covered by the data?
18 A   No.
19 Q   What do you base that on?
20 A   I base it on doing probably 40 of such studies   11:02AM
21 over the course of the last 20 years, and whatever
22 is going on in the housing market with respect to
23 the hedonic analysis, you're looking at real
24 transactions. You're looking at willing buyers and
25 willing sellers, and you've got transaction data   11:02AM

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1   that reflects their motivations, their willingness

2   to pay on both the demand and their willingness to

3   accept on the sell side.

4   So with regard to the actual housing market

5   conditions that exist, the transactions are — if   11:03AM

6   not a sufficient statistic with regard to those

7   market conditions, they are as close as one can get

8   from an objective standpoint.

9   Q   Don't you need to account for factors in the

10   **market in a statistical analysis?**   11:03AM

11   A   Factors in the market in a statistical

12   analysis? Can you be more specific? You mean

13   income levels; do you mean economic base; what are

14   you referring to as factors?

15   Q   In a statistical analysis in a hedonic model,   11:03AM

16   what factors in the model do you deem to be

17   appropriate?

18   A   It depends on how the model is constructed.

19   If you look at this particular model, the model is

20   constructed with a base and it looks at the   11:04AM

21   increment of what is going on at Tenkiller Lake

22   relative to that base. Now, with regard to issues

23   associated with affordability, with regard to

24   interest rates, with regard to new economic bases

25   and how they change within the state of Oklahoma,   11:04AM

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1   there is no evidence that there is any difference in

2   those external market forces on the base vis-a-vis

3   Lake Tenkiller. So as a result, if I am concerned

4   only with regard to the increment associated with

5   Lake Tenkiller versus Eufaula being the base that   11:05AM

6   I'm evaluating, and those external factors are

7   basically the same but for the poultry operations

8   that exist around one of those lakes but not the

9   other lake, I have implicitly taken into account all

10   of those factors that you're referring to or better   11:05AM

11   yet, that I presume you were referring to.

12   Q   Well, in your answer, what external factors

13   have to be the same?

14   A   Interest rates on mortgages, and they were the

15   same for that period of time, certainly varying with   11:05AM

16   regard to the various conditions of the transactions

17   themselves, the general economic conditions with

18   respect to the economic base within the state of

19   Oklahoma, whether we are in a recession as we were

20   in 2001, and we start the data in 1995, which means   11:06AM

21   that we missed the recession that existed in the

22   early 1990s, but those external conditions are the

23   kinds of conditions that if I was looking at one of

24   them standalone without the base, then I would have

25   to take those factors into account, but not if I'm   11:06AM

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1   looking at it relative to a base analysis in which

2   those external factors can reasonably be presumed to

3   be the same.

4   Q   Now, if you don't have a good understanding of

5   the market, how do you know that you've modeled it   11:07AM

6   correctly?

7   MR. DEIHL: Object to the form of the

8   question.

9   A   I don't understand the question. I think I've

10   already explained to you that using the base   11:07AM

11   analysis, the factors in the market have already

12   implicitly taken into account to the extent that

13   they're relatively the same across each of the two

14   markets that I'm looking at and, moreover, I know of

15   no evidence to suggest that the external demand and   11:07AM

16   supply conditions are different in those two

17   markets, and I've looked at that question and seen

18   not one shred of evidence that they're different.

19   Q   Have you been to Lake Eufaula?

20   A   No.   11:08AM

21   Q   Have you ever been to Lake Tenkiller?

22   A   No.

23   Q   Do you know whether any of your staff has?

24   A   No.

25   Q   Did you speak to any realtors in the Lake   11:08AM

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1   Eufaula area in connection with this case?

2   A   My staff certainly did. Lisa Keating in

3   particular spoke to realtors in the areas, yes.

4   Q   Is that documented anywhere?

5   A   Not to my knowledge.   11:09AM

6   Q   What do you know about Lisa Keating's

7   discussions with realtors in the area?

8   A   She certainly reported to me the result of

9   those discussions and that they -- the realtors

10   suggested doing other comparisons aside from just   11:09AM

11   the comparison between Tenkiller Lake and Lake

12   Eufaula, which we subsequently did based on that

13   conversation or conversations that she had with

14   realtors and, as I recall, an expert in real estate

15   law that she had a discussion with as well.   11:10AM

16   In addition, there was represented to me by

17   Miss Keating the differences between the quality of

18   each of the two respective lakes.

19   MS. MOLL: Can you read that answer back?

20   (Whereupon, the court reporter read

21   back the previous answer.)

22   Q   What do you mean by quality of the respective

23   lakes?

24   A   That both — both lakes were on the Department

25   of Environmental Quality's 303(d) list, but only   11:11AM

1 Tenkiller was identified as being aesthetically
2 impaired due to phosphorus, but no parts of Lake
3 Eufaula was on the list for phosphorus impairment.
4 There was also a question about water clarity and if
5 you look at my discussion in Section 3, you'll find   11:12AM
6 the representation of what we learned in her
7 discussion with local officials, and I point you
8 directly to Eufaula Lake may be windier and have
9 less water clarity than Tenkiller.
10 Q   Which page are you looking at?   11:12AM
11 A   I'm looking at Page 22.
12 Q   So, Dr. Rausser, you're saying that the
13 sentence that begins, for example, due to its size
14 and location, that statement there is based in part
15 on discussions that Lisa Keating had with these   11:13AM
16 realtors?
17 A   That it was motivated by that discussion. We
18 then looked at the factual objective information
19 that existed, but it was certainly motivated by that
20 initial discussion.   11:13AM
21 Q   Where were these realtors located?
22 A   I do not know.
23 Q   And, again, are these discussions documented
24 anywhere?
25 A   Not in my file, no.   11:14AM

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1 Q   Okay. You mentioned that these realtors
2 suggested doing other comparisons. What other
3 comparisons did they suggest?
4 A   Comparing it to a nearby city as well, which
5 you'll find at the bottom of Page 24.   11:14AM
6 Q   So you're referring to the comparison to homes
7 in Tahlequah?
8 A   Yes.
9 Q   Okay. Were any other analyses done comparing
10 home prices around Lake Tenkiller and another   11:14AM
11 geographic location?
12 A   No.
13 Q   How was Tahlequah decided upon?
14 A   It was decided upon because it was a nearby
15 city that is recognized and reported as being one of   11:15AM
16 the best fishing towns in America, and it's close to
17 the lake at issue.
18 Q   Okay, and when you say it's been recognized as
19 one of the best fishing towns in America, what are
20 you referring to?   11:15AM
21 A   I'm referring to a magazine that reports the
22 best fishing towns in the United States, and this is
23 one that's mentioned, and it's the closest one
24 that's located to Lake Tenkiller.
25 Q   Is that in your considered materials?   11:16AM

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1 A   I believe it is, but I'd have to go back to
2 check to make sure.
3 Q   Did you consider that when deciding upon
4 Tahlequah?
5 A   Yes.   11:16AM
6 Q   You also mention that Ms. Keating had a
7 discussion you thought with an expert in real estate
8 law; is that correct?
9 A   That's correct.
10 Q   Who is that individual?   11:16AM
11 A   I don't know.
12 Q   Is that documented anywhere?
13 A   Not in my files.
14 Q   And do you know what they discussed?
15 A   My recollection, based on my conversations   11:16AM
16 with Miss Keating, is that that conversation
17 confirmed what we had done and/or were doing in
18 completing our analysis.
19 Q   Was that individual provided materials in
20 relation to your work?   11:17AM
21 A   No.
22   MS. MOLL: I think it's time for another
23 tape change.
24   VIDEOGRAPHER: We are off the Record at
25 11:17 a.m.   11:17AM

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1   (Following a short recess at 11:17
2 a.m., proceedings continued on the Record at 11:35
3 a.m.)
4   VIDEOGRAPHER: We are back on the Record at
5 11:35 a.m.   11:35AM
6 Q   Dr. Rausser, before the break we were talking
7 about the markets around Lake Eufaula and Lake
8 Tenkiller. Other than the external factors that you
9 mentioned, do you have an understanding of the
10 housing markets around the two lakes?   11:35AM
11 A   Yes.
12 Q   And describe your understanding for me.
13 A   My understanding is reflected by the
14 transaction data that we have summarized in Section
15 3 of our report and, in addition, the conversations   11:35AM
16 with — between my staff and local officials in
17 those communities. My purpose was to look at the
18 objective data, one, actual transactions, and my
19 understanding is sourced with the analysis that's
20 reflected here in Section 3 with regard to real   11:36AM
21 transactions.
22 Q   Do you have an understanding of the market
23 other than what is reflected in Chapter 3?
24 A   Yes.
25 Q   And what is that?   11:36AM

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1   A   That the market conditions with respect to the
2   market segment surrounding Lake Tenkiller, that
3   those external factors are basically the same as
4   those that exist for Lake Eufaula.
5   Q   Okay, and I want to be sure that I understand   11:36AM
6   what you mean when you say external factors. So if
7   you could identify for me all of those external
8   factors that you're referencing.
9   A   General economic conditions, interest rates on
10 mortgages for similarly situated buyers of property   11:37AM
11 that are seeking mortgages, similar demographics,
12 similar preferences with regard to location,
13 economic bases that are similar between the two
14 communities.
15 Q   Anything else?   11:38AM
16 A   No.
17 Q   When you say similar demographics, what
18 analysis did you do to compare the demographics in
19 the Lake Eufaula and Lake Tenkiller regions?
20 A   Looked at the demographics and the economic   11:38AM
21 conditions that existed in the state of Oklahoma
22 where you would expect the population that would
23 demand lakeside properties in various areas within
24 the state.
25 Q   And have you reported that analysis?   11:39AM

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1   A   No. That was background, just background
2   material that is readily available from the State of
3   Oklahoma.
4   Q   But you have not identified what you relied on
5   in coming to that conclusion; correct?   11:39AM
6   A   I've not identified it, that's correct, but I
7   don't regard that as a conclusion. I regard that as
8   background information that's not a conclusion. Any
9   conclusions that I've drawn are reflected in Section
10 3 with regard to the actual transactions.   11:39AM
11 Q   You mentioned another factor which you found
12 to be the same between the regions and that was
13 preferences with regard to location; is that
14 correct?
15 A   Yes.   11:40AM
16 Q   And what analysis did you do to conclude that
17 they were the same in the two regions?
18 A   I didn't say the same. I said similar.
19 Q   Okay, and what analysis did you do to conclude
20 that they were similar?   11:40AM
21 A   I put myself in the shoes of a rational
22 potential buyer who desires to have property or
23 homes close to a lake, and clearly the preferences
24 of such people are different than the preferences of
25 the general population, and if one had those sorts   11:40AM

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1   of preferences and they were looking at the various
2   opportunities, and all I'm interested in in my
3   analysis here is distinguishing the potential impact
4   of poultry operations for one buyer with those kind
5   of preferences versus that same buyer with regard to   11:41AM
6   another location which is unaffected by poultry
7   operations, but I am presuming from the standpoint
8   of economic principles that the buy side of the
9   market in each of those two instances are people
10 with similar preferences.   11:41AM
11 Q   Other than what you just described, did you do
12 any additional analysis to conclude that people's
13 preferences with regard to location were similar
14 between Lake Tenkiller and Lake Eufaula?
15 A   Factually, no, but from the standpoint of   11:42AM
16 fundamental economic principles, yes, which I just
17 described.
18 Q   You also mentioned another external factor,
19 that being the economic bases were similar between
20 the two lakes; is that correct?   11:42AM
21 A   Yes.
22 Q   And what analysis did you do to arrive at the
23 conclusion that they were similar?
24 A   The analysis relates to both opportunities
25 existing within the state of Oklahoma, and if you   11:42AM

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1   look at Table 3.1, you'll have -- you have the
2   analysis with regard to transaction costs accessing
3   each of those two properties and also an analysis of
4   what the nearby communities are, the location of
5   each of the lakes with respect to the Tulsa   11:43AM
6   International Airport. So each of those facts that
7   are listed there are consistent with the economic
8   principles that I outlined with regard to
9   similarities.
10 Q   So other than what's reported in Table 3.1,   11:43AM
11 did you do any analysis to conclude that the
12 economic bases were similar between Lake Eufaula and
13 Lake Tenkiller?
14 A   No.
15 Q   Other than what we have already talked about,   11:44AM
16 do you have any other understanding about the
17 communities around Lake Eufaula and those around
18 Lake Tenkiller?
19 A   Other than what we've talked about? We
20 haven't talked very much about the transactions and   11:45AM
21 the analysis of the transactions and the estimated
22 coefficients. So, yes, there is much more than what
23 we talked about because you haven't asked me any
24 questions about the regression results, whether
25 those results are significant and meaningful. So I   11:45AM

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1 guess my answer is there's many other things, and
2 they're all in Section 3.
3 Q   Okay. So let me amend my question. Other
4 than what is reported in Chapter 3 and what we have
5 discussed this morning, do you have any other   11:45AM
6 understanding of the markets around Lake Eufaula and
7 Lake Tenkiller?
8 A   No.
9 Q   I'm handing you what's been marked as Exhibit
10 9, which is a chapter on the hedonic method out of a   11:46AM
11 book called A Primer on Non-Market Valuation edited
12 by Champ, Boyle and Brown. Do you see that there?
13 A   I do.
14 Q   Are you familiar with this book? Dr.
15 Rausser —   11:48AM
16 A   I know the question. I'm reviewing the
17 document. I have the question clearly in mind.
18 Yes.
19 Q   Would you kindly turn to Page 349 under the
20 section called Sample Frame, Section 3.3.   11:48AM
21 A   349?
22 Q   Page 349.
23 A   Thank you.
24 Q   Do you have that in front of you?
25 A   No, not yet. I do now.   11:48AM

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1 Q   First, would you tell the court what a sample
2 frame is in your own understanding?
3 A   In this context it's the geographic scope of
4 the data selected, as well as the time period over
5 which that data is collected.   11:49AM
6 Q   Let me turn your attention to the text that
7 starts on the last line of Page 349 starting with
8 geographic dispersion. This reads, geographic
9 dispersion of properties sufficient to ensure
10 variation in an ambient environmental variable may   11:49AM
11 result in a sample frame that is comprised of
12 properties from multiple markets. If in order to
13 get sufficient variation in an environmental
14 variable, the geographic dispersion of properties in
15 a sample is increased so that properties are now   11:49AM
16 drawn from different markets, estimating one hedonic
17 price function for the entire sample is
18 inappropriate. This is because the hedonic price
19 function is an equilibrium function describing a
20 specific market. As such, all properties used in a   11:50AM
21 hedonic regression must be part of the same housing
22 market. Do you agree with the principles that are
23 expressed there in that paragraph?
24 A   No. It depends on the purpose for which the
25 analysis is conducted, and the purposes would   11:50AM

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1 dictate whether in fact they must be part of the
2 same housing market. In my case, I certainly want
3 the external conditions to be similar, which we've
4 already covered, and, moreover, from the standpoint
5 of an analysis of relevant market with regard to not   11:50AM
6 only its geographic scope but its time scope, I have
7 satisfied that in the work that is specified in
8 Section 3.
9 Q   So is it your view that the communities around
10 Lake Eufaula and Lake Tenkiller do not have to be a   11:51AM
11 part of the same housing market for purposes of the
12 hedonic model that you performed?
13 A   No.
14 Q   What is your opinion?
15 A   My opinion is that the housing market with   11:51AM
16 respect to the demand side of the market and the
17 available supply that exists in each of those two
18 locations are part of the same relevant geographic
19 market.
20 Q   But is it your view that they're a part of the   11:51AM
21 same housing market?
22 A   I don't know what the difference is between
23 what I just said and your question.
24 Q   Okay. Turn to Page 23 of your report, Exhibit
25 2, and specifically Figure 3.1. Do you believe that   11:52AM

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1 McIntosh, Cherokee and Sequoyah Counties are part of
2 the same housing market?
3   MR. DEIHL: Object to the form of the
4 question.
5 A   That's not a question that I've analyzed. I   11:52AM
6 haven't visited that question and have no opinion in
7 that regard.
8 Q   Okay. Did you estimate one hedonic price
9 function for the sample?
10 A   No. I estimated more than one.   11:53AM
11 Q   Describe that for me.
12 A   The description is available in 3.2, Table
13 3.3, Table 3.4, Table 3.5.
14 Q   Did you segment your data here between Lake
15 Eufaula and Lake Tenkiller?   11:55AM
16 A   You're going to have to define what you mean
17 by segment.
18 Q   Okay. Do you have an understanding of that
19 term in the hedonic literature?
20 A   I do, but I don't know what — what is your   11:55AM
21 question about segment.
22 Q   Give me your definition of segmenting.
23 A   Distinguishing, that is, to say stacking all
24 the data but using an indicator variable to
25 distinguish one segment from another.   11:55AM

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1 Q   And did you do that in this case?

2 A   I did.

3 Q   Describe that.

4 A   In each of the analysis, the hedonic analysis,

5 there is an indicator variable that distinguishes   11:56AM

6 Lake Tenkiller from the entire set of observations

7 for both lakes. Moreover, there is also

8 distinguishing variables looking across time. So

9 given the time frame that is being analyzed here,

10 I've looked at whether there is any variation year   11:56AM

11 by year coming back to your article in Exhibit 9, is

12 there any distinguishability with regard to

13 Tenkiller's relative performance to the base lake

14 across the years in the sample, and I also looked at

15 alternative geographic scopes. In particular, I   11:57AM

16 looked at the base within one mile of the lake and I

17 looked at Tenkiller within one mile of the lake, and

18 I investigated sensitivity of those results by

19 looking at a geographic scope for only data within a

20 half a mile of each of the two respective lakes.   11:57AM

21 Q   How was distance calculated?

22 A   In miles from the shore of the lake.

23 Q   So is that as the crow flies?

24 A   Yes.

25 Q   Okay, and what software was used to determine   11:58AM

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1 that calculation?

2   MR. DEIHL: Object to the form of the

3 question.

4 A   Google, and I believe, although I'd have to

5 check to make sure, I think the software is GPS.   11:58AM

6 Q   Okay. Was it someone on your staff who

7 extracted that data?

8 A   Yes.

9 Q   Who was that?

10 A   Miss Keating.   11:59AM

11 Q   Is that reported anywhere in terms of her

12 extraction of data from that software?

13 A   Yes, I believe it is. It's included in the

14 documents that were produced along with the report.

15 Q   You know that to be true?   11:59AM

16 A   I didn't review all the documents that were

17 produced. My staff prepared that. So the answer to

18 your question is with certainty, no.

19 Q   Let me hand you Exhibit 10, which is a May

20 8th, 2009 letter from Colin Deihl to Claire Xidis.   12:00PM

21 Have you seen this document before?

22 A   No.

23 Q   If you'll turn to the last page, in the

24 left-hand column, you'll see a paragraph starting

25 No. 19, in Chapter 3 of the Desvousges/Rausser   12:01PM

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1 report, data are provided that indicated whether a

2 property is located within a half mile and/or mile

3 of the lake. However, it appears that

4 Desvousges/Rausser have not provided the relevant

5 data that was used to do the calculation, including   12:02PM

6 but not limited, to the GIS data they apparently

7 implemented in this process, and in the right-hand

8 column it says, PV plus database,

9 www.countyassessor.info was determined to determine

10 whether a subdivision is within a one-mile radius or   12:02PM

11 half-mile radius of a given lake. This database

12 provides software with several map tools and

13 features that measure distances on a map. Do you

14 see that?

15 A   I do.   12:02PM

16 Q   Do you know — did you have any involvement in

17 providing Mr. Deihl with information about the

18 software used to calculate distance?

19 A   There was certainly a request from counsel in

20 that regard, and members of my staff certainly   12:03PM

21 responded to that and, moreover, with regard to this

22 specific item, No. 19, there was a crosscheck that

23 was conducted by staff with regard to the Google

24 sources that I've referred to earlier.

25 Q   And when was that crosscheck done?   12:03PM

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1 A   I don't recall.

2 Q   Was it before March 31st or after?

3 A   I don't recall.

4 Q   Okay. So you've no recollection of whether

5 that was done prior to or subsequent to the   12:03PM

6 production of your expert report and considered

7 materials?

8 A   Once again, I don't recall.

9 Q   Do you know whether that's reported anywhere?

10 A   It's my recollection that it's reported in the   12:04PM

11 response to your query in 19, that if you go to that

12 database, you'll find that in part they're relying

13 on similar information that is available on Google

14 maps.

15 Q   And other than this letter, my question is, do   12:04PM

16 you know whether this is reported?

17 A   I'm sorry, whether it's reported?

18 Q   Do you know whether in your report or in your

19 considered materials whether it is reported how

20 distance was calculated and what software was used?   12:05PM

21 A   I'm having difficulty with your question

22 because it's clearly laid out right here in the

23 response to 19. What's the distinguishing part of

24 your question with regard to going up to this

25 particular website and seeing exactly how the   12:05PM

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1 distance is used?
2 Q   Well, my question, Dr. Rausser, is, this is a
3 letter produced on May 8th to us. Is this
4 information recorded or reported anywhere else that
5 has been produced to the State?   12:05PM
6 A   I do not recall.
7 Q   Keeping with that description there, do you
8 know what map tools and features were used in the PV
9 Plus database by your staff?
10 A   No.   12:05PM
11 Q   Do you know whether there is a casino close to
12 Lake Tenkiller or Lake Eufaula?
13 A   No.
14 Q   You didn't consider that question in your
15 analysis?   12:06PM
16 A   No.
17 Q   Let me hand you Exhibit 11, which are two
18 pages out of your considered materials. Do you
19 recall looking at this document in connection with
20 your work here?   12:07PM
21 A   Me specifically?
22 Q   Yes.
23 A   No.
24 Q   Now, this document is entitled 2009 guide to
25 Lake Eufaula, and the second page here identifies   12:08PM

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1 the Creek Nation Casino, and one location is noted
2 in the bottom left-hand corner as being in Eufaula.
3 Would it be important to you in doing a hedonic
4 model to know whether there was a casino nearby one
5 of the lakes?   12:08PM
6 A   No.
7 Q   Why not?
8 A   Because what I am interested in measuring is
9 the incremental effect, if any, related to
10 phosphorus loading at one lake versus another, and   12:08PM
11 if in the base there is an expansion of economic
12 base and, moreover, I don't know when this
13 particular casino was introduced within the sample
14 period, but whenever it was introduced, if it had
15 any effect on housing values in the base lake, then   12:09PM
16 it would have been picked up in that transaction
17 data.
18 Q   Okay, and which variable would have captured
19 that?
20 A   The variable that would have captured that is   12:09PM
21 the transaction prices that are the dependent
22 variable for the base case.
23 Q   Now, if this casino is near Lake Eufaula and
24 not Lake Tenkiller, wouldn't that show up in the
25 coefficient for that lake?   12:10PM

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1 A   It would show up in the coefficients for the
2 different attributes and characteristics of the
3 houses that have transacted near that lake, if it
4 has any major impact on those transactions.
5 Q   Wouldn't it affect the coefficient on Lake   12:10PM
6 Tenkiller vis-a-vis the constant term?
7 A   Yes, if it has any effect at all.
8 Q   Now, before you had said when you were
9 considering people's preferences with regard to
10 location and concluding that they were similar   12:11PM
11 between the two lakes, you put yourself in the shoes
12 of a buyer; correct?
13 A   Yes.
14 Q   And as -- putting yourself in the shoes of a
15 buyer, wouldn't you want to know whether there was a   12:11PM
16 casino nearby a lake if you're choosing between two
17 lakes to buy a home?
18 A   No.
19 Q   Why not?
20 A   Because, as I indicated in Table 3.1, the   12:11PM
21 transaction cost with regard to access to any
22 special services that might be provided at each of
23 the two respective lakes are equally accessible to
24 the potential buy side of the market that helps to
25 drive the actual transaction values that have been   12:12PM

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1 recorded.
2   MS. MOLL: Can you read that answer back?
3   (Whereupon, the court reporter read
4 back the previous answer.)
5 Q   But they're not equally accessible, are they,   12:13PM
6 if the casino is next to one lake and not the other?
7 A   With regard to the buy side, looking at
8 relocating their housing services at one lake versus
9 another, yes, they are equally accessible. If one
10 particular buyer in the marketplace is placing some   12:13PM
11 incremental value on being located close to a
12 casino, everything else constant, that would drive
13 up their willingness to pay for property in the base
14 case to Lake Tenkiller, and if that's the case, it
15 should have a chilling effect on the differential   12:14PM
16 between the two particular locations, and as you see
17 in my analysis, the analysis is robust with regard
18 to Lake Tenkiller vis-a-vis Eufaula Lake. So even
19 though there may be some small amount of the actual
20 population entering into such transactions, the   12:14PM
21 effects do not have any diminution on the
22 incremental value of Lake Tenkiller versus the base
23 case.
24 Q   So as you sit here today, just having learned
25 that there is a casino near Lake Eufaula, are you   12:15PM

1 saying that with that knowledge, you wouldn't want
2 to do any other analysis as to the impact on your
3 model here?
4   MR. DEIHL: Object to the form of the
5 question. You can go ahead and answer.   12:15PM
6 A   Not with respect to the purposes for the
7 analysis that I've conducted, no.
8 Q   Let me hand you Exhibit 12, which is a
9 printout off of the Army Corps of Engineers website
10 with regard to Lake Eufaula, and let me also hand   12:17PM
11 you Exhibit 13, which is a similar printout but
12 relating to Lake Tenkiller.
13   Now, looking at Exhibit 12, in the second
14 paragraph this indicates with regard to Eufaula
15 Lake, over 250 housing developments with lake homes   12:18PM
16 are located in close proximity to the shoreline. Do
17 you see that?
18 A   I do.
19 Q   But your analysis did not take into account
20 this issue of the number of housing developments   12:19PM
21 with lake homes located in close proximity to the
22 shoreline of Lake Eufaula; correct?
23 A   False.
24 Q   How is that false?
25 A   False, because as I indicated, I looked at the   12:19PM

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1 number of homes at least with regard to transactions
2 over the time frame that I evaluated within a half
3 mile, which would, of course, include such
4 transactions on the housing that exists and is
5 referred to in the second paragraph. So the answer   12:19PM
6 to your question is, no, that is not true.
7 Q   But you have no separate variable for the
8 number of housing developments with lake homes
9 located in close proximity to the shoreline;
10 correct?   12:19PM
11 A   I have data with regard to transactions on
12 those housing developments located in close
13 proximity to the shoreline.
14 Q   But my question was, that you have no separate
15 variable; correct?   12:20PM
16 A   I do have a variable with regard to the
17 transactions. So if you're saying do you have a
18 separate explanatory variable for housing
19 developments, the answer is no. I'm explaining
20 values. My purpose is to look at actual transaction   12:20PM
21 data and explain the value of the properties and,
22 no, I did not include as a separate explanatory
23 variable the relative housing developments in each
24 of the two areas for the time frame that I looked
25 at.   12:20PM

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1 Q   So you would not agree with me that this
2 difference in the housing market supply could affect
3 the coefficient on Lake Tenkiller vis-a-vis the
4 constant?
5   MR. DEIHL: Object to the form of the   12:21PM
6 question.
7 A   May I have that question back?
8   (Whereupon, the court reporter read
9 back the previous question.)
10 A   First of all, I object to your question   12:21PM
11 because I haven't said anything about and nor does
12 this document say anything about housing supply. It
13 says housing developments. It doesn't say anything
14 about supply. In my analysis, I certainly take into
15 account both the supply and the demand side with   12:21PM
16 respect to actual transactions. So I don't see
17 anything here that talks about the supply of
18 available housing that's on the market that results
19 in transactions.
20 Q   Well, what do you know about the housing   12:21PM
21 market supply on Lake Tenkiller?
22 A   What I know about the housing supply is the
23 actual transactions that were conducted, and a
24 transaction can't take place unless there's supply
25 and demand.   12:22PM

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1 Q   So other than the transactions that you're
2 referencing, what do you know about the housing
3 market supply on Lake Tenkiller?
4 A   What I know is what is reflected in the data
5 itself about the transactions that took place within   12:22PM
6 a half a mile of the lake, within a mile of the
7 lake, and that certainly reflects the willing supply
8 on the part of current property right holders of
9 those specific properties with regard to
10 consummating a transaction. That's what I know.   12:22PM
11 That's what I've relied upon.
12 Q   Now, in your model you do not use a variable
13 for the number of marinas relating to each lake;
14 correct?
15 A   In the hedonic model, that's true, but that's   12:23PM
16 not true with respect to the analysis that's
17 conducted in Section 2.
18 Q   Okay. If there were fewer new houses at Lake
19 Tenkiller versus Lake Eufaula, could that show up in
20 the coefficient on Lake Tenkiller vis-a-vis Lake   12:24PM
21 Eufaula?
22 A   Could I have the question back?
23   (Whereupon, the court reporter read
24 back the previous question.)
25 A   Your question doesn't make any sense. You   12:24PM

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1	mean fewer houses offered for sale or just fewer
2	houses in the inventory of houses? There's a
3	difference between the stock and the flow. So could
4	you restate the question and tell me whether you
5	want my response in terms of stock or flows? 12:25PM
6	Q Flows.
7	A Okay. Give me the question back and I'll
8	interpret it with regard to flows.
9	(Whereupon, the court reporter read
10	back the previous question.) 12:25PM
11	A It would certainly show up in the number of
12	transactions that are recorded, certainly. With
13	regard to the valuation or in particular the
14	relative valuation, it may or may not.
15	Q And how about in terms of stock? 12:25PM
16	A Well, I haven't analyzed the stock. I've only
17	analyzed the flow.
18	Q I'm handing you Exhibit 14, which is the lake
19	level report for Tenkiller Lake by the U. S. Army
20	Corps of Engineers regarding recreation 2006. Let 12:26PM
21	me also hand you Exhibit 15, which is a similar
22	report for Lake Eufaula. Let me direct your
23	attention to the first table in each exhibit.
24	A The social benefits table?
25	Q Correct. 12:27PM

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1	A Thank you.
2	Q And you'll notice in the second column under
3	visits, second from the bottom it identifies the
4	number of hunters for Lake Tenkiller in Exhibit 14
5	and the number for Lake Eufaula in Exhibit 15. Do 12:28PM
6	you see where I'm referencing?
7	A I do.
8	Q For Lake Tenkiller it says that for that lake
9	there were 68,000 approximately hunters and for Lake
10	Eufaula there were over 26,800. Do you see that? 12:28PM
11	A I do.
12	Q And did you control for this difference in
13	your hedonic analysis?
14	A No, and I see no reason why I would want to do
15	so given the purpose for conducting the analysis. I 12:28PM
16	will note, however, that that is taken into account
17	in Section 2 of our report.
18	Q When you say Section 2 of your report, are you
19	referring to the model that was done there?
20	A Yes. 12:29PM
21	Q Okay, but for purposes of the hedonic model,
22	the difference that we're talking about here in
23	terms of number of hunters was not controlled;
24	correct?
25	A That is correct. 12:29PM

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1	Q Okay, and the same would hold true for the
2	difference in the number of fishermen?
3	A Yes.
4	Q And also that would hold true for the number
5	of swimmers? 12:29PM
6	A Yes.
7	Q Okay. In your hedonic model did you control
8	for the difference in population density?
9	A No.
10	Q And do you agree that population density is a 12:29PM
11	factor that is expected in economic theory to have
12	some influence on house prices?
13	A It depends.
14	Q Can it?
15	A It depends. Once again, it depends on the 12:30PM
16	facts. If there's no change in the population
17	density, there isn't going to be any variation. As
18	a result, you're not going to pick up any
19	association between population density and the value
20	of houses and, moreover, even if you're taking it 12:30PM
21	against a benchmark and if your focus is on
22	distinguishing the inherent characteristics of the
23	properties and whether one particular location is
24	preferable over another location and if the
25	population density hasn't changed relatively over 12:30PM

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1	the course of the time frame that you're looking at,
2	no, it doesn't make any difference.
3	Q And that was not something that you considered
4	to be important in doing your hedonic analysis of
5	house prices here? 12:31PM
6	A With regard to the purpose for doing the
7	analysis, yes.
8	Q Could differences in the population density or
9	stock of houses at each lake affect the prices of
10	houses sold there in a year? 12:31PM
11	A May or may not. Depends on the facts.
12	Q And that wasn't something you considered here?
13	A No. Given the purposes for my analysis, it
14	was determined that it was not important to assess.
15	MS. MOLL: Why don't we take our break now. 12:32PM
16	VIDEOGRAPHER: We are off the Record at
17	12:32 p.m.
18	(Following a lunch recess at 12:32
19	p.m., proceedings continued on the Record at 1:39
20	p.m.) 01:39PM
21	VIDEOGRAPHER: We are back on the Record.
22	The time is 1:39 p.m.
23	A A point of clarification: You asked me a few
24	questions this morning about Table 4.7, with respect
25	to the standard errors that were the same for both 01:39PM

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22 (Pages 82 to 85)

1 the base version on the traditional bootstrap and
2 the scope, and the second entry of 11.34 is a
3 pasting error, and the actual standard error is
4 approximately 13.2. However, what's important is
5 that the confidence intervals that are reported   01:39PM
6 there are correct and were computed for the correct
7 standard error. Moreover, it doesn't change the
8 text at all because all that's discussed in the text
9 is the confidence intervals themselves, which are
10 correctly reported.   01:40PM
11   Secondly, you asked me with respect to the
12 Section 3 analysis whether there was any other runs
13 that were made aside from those that were reported,
14 and there was another run that was done for a much
15 smaller sample size based on lot size.   01:40PM
16 Unfortunately for the sample data that was
17 available, there were only a hundred transactions
18 for which there was lot size. It did and was highly
19 significant and, moreover it didn't change the
20 results. In fact, the explanatory power went up   01:41PM
21 dramatically but it didn't change the results or the
22 purpose for which I did the analysis, and since it
23 was a much smaller number of observations, I did not
24 include it.
25 Q   The clarification that you've just given, are   01:41PM

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1 those changes that you're making based on
2 discussions you had over the lunch break?
3 A   Yes, to the former. No, to the latter.
4 Q   Okay. How did you arrive at the change to the
5 standard error in Table 4.7 going from 11.34 to   01:41PM
6 13.20?
7 A   By having my staff go back and look at the
8 actual construction of the traditional bootstrap,
9 making the number of observations equivalent for
10 both the base and the scope and looking at first   01:41PM
11 where the confidence intervals reported correct and
12 the answer is yes, and, secondly, why are the two
13 standard errors the same in each case, and they
14 checked it, and it turned out that, once again, it
15 was a pasting error onto the website for the   01:42PM
16 document that we submitted additional materials in
17 preparation of the final report.
18 Q   And this is work that they did this morning to
19 correct the standard error to 13.20?
20 A   No. It's not correcting to 13.20. It is   01:42PM
21 13.20. That's the point. That's a pasting error;
22 that's a typo. They didn't correct it because the
23 confidence intervals are already correctly reported.
24 Q   But my question was, they are correcting the
25 table in Table 4.7; correct?   01:42PM

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1 A   They're correcting a typographical error in
2 the entry of 11.34 for the row designated scope,
3 traditional bootstrap.
4 Q   And which staff members did that work this
5 morning?   01:43PM
6 A   Joanne Lee.
7 Q   Anyone else?
8 A   No.
9 Q   Okay, and then modification to your answer
10 concerning Section 3, you testified that another run   01:43PM
11 had been done for a smaller lot size; correct?
12 A   No.
13 Q   Okay. Tell me again your modification.
14 A   A smaller sample that included lot size.
15 Q   And when was that run done?   01:43PM
16 A   It would have been done sometime within the
17 last three weeks, four weeks.
18 Q   What was the purpose of doing that additional
19 run?
20 A   To examine whether the results were sensitive   01:44PM
21 to lot size.
22 Q   And was that run documented in any way?
23 A   Yes.
24 Q   Okay, and who has that documentation?
25 A   OnPoint Analytics.   01:44PM

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1 Q   Who specifically?
2 A   Lisa Keating.
3 Q   Okay. Let me hand you Exhibit 16, which is an
4 article that you co-authored with Jill McCluskey
5 called Stigmatized Asset Value: Is It Temporary or   01:45PM
6 Long Term? Describe for me the study that provided
7 the background for this article.
8 A   The background for the article is that in the
9 early 1990s I was engaged as an expert to evaluate
10 property value diminution resulting from   01:46PM
11 environmental contamination, and there were probably
12 two or three engagements in which I was a testifying
13 expert, and a fair amount of data was collected in
14 that or in those engagements, much of which was
15 secondary data that was not under any confidential   01:47PM
16 seal.
17   Miss McCluskey was a PhD student at UC
18 Berkley, and I was her dissertation director, and
19 she was doing work in the economics of environmental
20 contamination, and we spent a fair amount of time --   01:47PM
21 at that moment in the literature there was an active
22 debate about temporary versus permanent diminution,
23 and most of it was not in peer-reviewed literature.
24 Instead, it was in the appraisal industry
25 publications about whether environmental   01:48PM

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23 (Pages 86 to 89)

1 contamination, once it corrected, would you expect
2 the new equilibrium to result in prices returning to
3 non-stigmatized values.
4   So as a result of that, we had the basic data
5 and in particular, as you see in this article, we   01:48PM
6 focused on the city of Dallas, and we had data with
7 regard to environmental contamination sourced with
8 landfills, and that was the foundation for the
9 motivation of looking at this specific question.
10 Q   In the underlying litigation, who retained you   01:49PM
11 as an expert?
12 A   In one matter it was Sidley -- the law firm,
13 the outside counsel was Sidley & Austin. In the
14 other matter my recollection, it was Folger & Levin.
15 Q   And who were the parties on whose behalf you   01:49PM
16 offered testimony?
17 A   My recollection is in one case it was Ford
18 Motor Company but it might have been Ford Motor
19 Credit. In another case it was a residential real
20 estate developer, homebuilder.   01:50PM
21 Q   All right. Turning back to Exhibit 16, your
22 article with Miss McCluskey, let me turn your
23 attention to Page 279, and specifically I'm looking
24 in the left-hand column in the main body of the text
25 six lines up, the sentence that begins neighborhood   01:51PM

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1 quality. Do you see that there, left-hand column of
2 the text?
3 A   Oh, left-hand column, thank you. Six lines
4 up?
5 Q   Yeah.   01:51PM
6 A   Yes.
7 Q   Could you read that sentence for me?
8 A   Neighborhood quality is based upon variables,
9 such as a percentage of households below the poverty
10 level, school district, ethnic composition and   01:51PM
11 accessibility to the Dallas-Fort Worth Airport, the
12 Dallas central business district, CBD, and the
13 Galleria Mall.
14 Q   Do you think that neighborhood quality is a
15 factor that can influence house prices?   01:51PM
16 A   It's possible. Depends on the facts.
17 Q   Now, in Table 1 on Page 279 of this article,
18 you identify variable definitions and descriptive
19 statistics; correct?
20 A   Yes.   01:52PM
21 Q   And in this model that you did here --
22 A   Just a moment. That's not a model there in
23 that Table 1.
24 Q   Right. In the table the third variable
25 identified is called land area, and the description   01:52PM

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1 is lot size and square feet. Do you see that?
2 A   I do.
3 Q   Another variable is called Galleria, and the
4 description is miles to the Galleria Shopping
5 Center; correct?   01:53PM
6 A   Correct.
7 Q   Going down several variables, there's one
8 called PBPOV and the description is percent of the
9 census tracked below the poverty line. Do you see
10 that?   01:53PM
11 A   I do.
12 Q   Now, these were variables that were controlled
13 for in the work that was done underlying this
14 article; correct?
15 A   Correct.   01:53PM
16 Q   But you did not control in this case for
17 similar variables; isn't that right?
18 A   In this case being --
19 Q   In the hedonic model that you did in this
20 case.   01:53PM
21 A   In Section 3 of my joint report?
22 Q   Correct.
23 A   Yes, but I had a base here. This is not
24 referring to a base.
25 Q   Am I correct, Dr. Rausser, that you did not   01:54PM

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1 control for the variables similar to these that are
2 identified in Table 1 in the article in the work you
3 did in Chapter 3 in your report?
4 A   No, I do not agree with that statement.
5 Q   And what's wrong about that statement?   01:54PM
6 A   What's wrong about that statement is that, as
7 outlined in Section 3, I'm doing a relative analysis
8 with a base case, in which I have assessed the facts
9 about the similarities with a number of control
10 variables that appear here that are basically   01:54PM
11 included in the base for which I am focusing on,
12 whether there's some diminution at Tenkiller
13 resulting from the alleged harm of poultry
14 operations surrounding that lake.
15 Q   Is it your position that you controlled for   01:55PM
16 these features via the dummy variable for Lake
17 Tenkiller vis-a-vis the constant term?
18 A   No. It's more than that.
19 Q   Explain to me what you mean.
20 A   I mean that there are individual transactions   01:55PM
21 from the base case, and I'm certainly looking at the
22 additive effect with regard to a potential stigma
23 associated with Lake Tenkiller, but I have, in
24 addition, observations which allow me to distinguish
25 for both sites what the value, the imputed value is   01:56PM

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1 of different characteristics and attributes of the
2 properties at each of the locations.
3 Q   Do you know what the percentage of the census
4 track below the poverty line is around Lake Eufaula?
5 A   No, I do not.   01:56PM
6 Q   Do you know that information for Lake
7 Tenkiller?
8 A   No.
9 Q   So then how do you know they're similar?
10   MR. DEIHL: Object to the form of the   01:56PM
11 question.
12 A   They're similar only with respect to the
13 geographic locations of the two properties, the
14 transaction costs associated with major core
15 metropolitan areas with regard to transport costs   01:57PM
16 from major locations and the configuration of nearby
17 communities, that they're comparable in that
18 respect. That's what I know.
19 Q   But you don't know whether they're similar?
20 A   I think I've already testified to whether   01:57PM
21 they're similar. We spent at least an hour this
22 morning discussing that.
23 Q   Well, with all due respect, Dr. Rausser, we
24 did not spend an hour going over whether you knew
25 that the percent of the census tracked below the   01:57PM

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1 poverty line was similar in those two regions.
2   Let's shift gears for a moment and talk about
3 the procedure that was used to obtain the data
4 underlining the hedonic model here. Can you
5 describe for me who on your staff did the data   01:58PM
6 extraction and what protocols they followed?
7 A   Lisa Keating was the person on my staff who
8 had worked with data, similar data from other county
9 assessors' offices, and she contacted them directly
10 and there was some cost associated with purchasing   01:59PM
11 the data, transaction costs with regard to
12 purchasing the data, which she sought and received
13 approval from counsel and purchased the data.
14 Q   Do you know whether there is any documentation
15 as to the correspondence between Ms. Keating and the 01:59PM
16 county tax assessors?
17 A   No.
18 Q   Do you know what kind of documentation exists
19 in terms of what she received back from the county
20 tax assessors?   01:59PM
21 A   No.
22 Q   Do you know whether that information is
23 produced — has been produced?
24 A   The data has certainly been produced.
25 Q   And what about any communications?   02:00PM

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1 A   If there are written communications, it's my
2 understanding that it's been produced. If it's oral
3 communications, then, no, it hasn't been produced.
4 Q   And once she had the data, what procedure did
5 she follow?   02:00PM
6 A   She would have taken — I don't know whether
7 in fact she got the data in electronic manipulable
8 format or whether she got hard copies. Regardless,
9 of the form in which it came, it would have been
10 entered into an Oracle database at OnPoint   02:00PM
11 Analytics, and that's where the raw data would
12 reside.
13 Q   When you say that the data has been produced
14 in this case, what do you base that on?
15 A   I base that on the representations from my   02:01PM
16 staff that all the analysis that we did based on
17 data that we did not extract from Stratus, the
18 Stratus report, that all of that information, along
19 with whatever codes were used for generating the
20 statistical models, was produced.   02:01PM
21 Q   Do you know whether the data extraction was
22 done all at once or in stages?
23 A   I want to make sure I understand your
24 question. Do you mean with regard to the data
25 reported to us or collected by us from the county   02:02PM

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1 assessor's office?
2 Q   Let me give you an example. Were both lakes
3 — information related to both lakes extracted
4 simultaneously or separately?
5 A   First of all, they were collected separately. 02:02PM
6 They were analyzed, however, simultaneously.
7 Q   Is there a concern in the hedonics literature
8 about including observations in the dataset that do
9 not represent arm's length transactions?
10 A   Yes.   02:03PM
11 Q   Okay, and is the concern that those types of
12 transactions may result from either transfers to
13 family members or from one business to another well
14 under market value?
15 A   There is a concern on the part of analysts in 02:04PM
16 that regard, but there are some checks and balances
17 in place, most of which are sourced with IRS
18 regulations.
19 Q   Isn't it true that the literature recommends
20 omitting observations on prices that are implausibly 02:04PM
21 low?
22 A   Depends on the criteria for implausibility.
23 Q   Okay. Do you agree that it's appropriate to
24 exclude observations on prices that have some low
25 value that would suggest it's not an arm's length   02:05PM

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25 (Pages 94 to 97)

1 transaction?
2 A   Not without additional prior information or
3 factual information that would indicate and provide
4 you a basis for drawing an inference that it was
5 less than arm's length.   02:05PM
6 Q   So what information would you need to come to
7 the conclusion that dropping observations on the low
8 end is appropriate?
9 A   Wait a minute. You've now changed the
10 question. The low end is not necessarily   02:06PM
11 implausible. Are you equating in your questions,
12 your prior questions and your new question low end
13 being implausible?
14 Q   Let me rephrase my question. What information
15 would you need to conclude that dropping   02:06PM
16 observations on the low end is appropriate?
17 A   Information from outside the sample.
18 Q   Like what kind of information?
19 A   Like an investigation of the transaction and
20 the actual parties entering into the transaction and   02:06PM
21 what is their relationship with one another.
22 Q   Is there any literature on dropping
23 observations on the high end?
24 A   Yes.
25 Q   And what does that literature entail?   02:07PM

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1 A   That literature goes to the standard
2 statistical analysis with regard to identifying
3 outliers, and there is a rich literature with regard
4 to statistical outliers.
5 Q   And is this literature in the hedonic   02:07PM
6 regression context?
7 A   Oh, it's much broader than that. No, it's not
8 specific to hedonic regression analysis.
9 Q   Okay. Are you aware of any literature in the
10 hedonics context that talks about dropping   02:08PM
11 observations at the high end?
12 A   Aside from statistical outlier analysis, I
13 don't recall any, no.
14 Q   Okay. If you would turn with me to Page 23 of
15 your report --   02:08PM
16 A   Yes.
17 Q   -- and let me direct your attention to
18 Footnote 10.
19 A   Yes.
20 Q   Do you have that in front of you?   02:09PM
21 A   I do.
22 Q   Okay. So the second sentence of that footnote
23 says, however, there were 73 instances where a
24 single property had more than one transaction in a
25 single year. These transactions were excluded. Did   02:09PM

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1 I read that correctly?
2 A   You did.
3 Q   Do you know what protocol was filed or
4 followed, excuse me, for excluding repeat
5 transactions in a single year?   02:09PM
6 A   The protocol was that the first transaction in
7 time that was recorded was the one that was
8 excluded -- pardon me, included.
9 Q   Okay, and was that protocol in written form?
10 A   Certainly in the code that mapped from the   02:10PM
11 data to the statistical model.
12 Q   Okay. Who prepared the code?
13 A   Lisa Keating working with an Oracle database
14 manager.
15 Q   Do you know who that manager was?   02:10PM
16 A   I don't know which one she was working with,
17 one of among three.
18 Q   Is that someone on staff at OnPoint?
19 A   Yes.
20 Q   Did you review the code?   02:10PM
21 A   No.
22 Q   Do you know whether there are other exclusions
23 of observations that are explained in your report?
24 A   Can you be more specific? You're asking me
25 about excluding observations that I discussed in my   02:11PM

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1 report?
2 Q   Correct.
3 A   Certainly in making some of the comparisons,
4 all of the transactions associated with Eufaula were
5 excluded, so it depends upon the analysis that was   02:11PM
6 being conducted with regard to what observations
7 were included or excluded. In addition, there was
8 some analysis looking at whether the results were
9 sensitive to tails in the distribution, and
10 observations in those tails were eliminated, which   02:12PM
11 is a natural check that we do at OnPoint Analytics
12 with regard to each and every statistics analysis
13 that we do. It's part of the accuracy, quality of
14 analysis. So there would have been outlier
15 routines, which would have looked at the results,   02:12PM
16 discarding observations in the tails.
17 Q   Now, with regard to the exclusions described
18 in Footnote 10 on Page 23, do you know whether there
19 were any checks in place to ensure that the protocol
20 you described of only including the first   02:13PM
21 transaction within that year was followed?
22 A   In the normal course of data accuracy, the
23 data, the Oracle data manager would have followed an
24 analysis to check randomly a comparison to make sure
25 that the protocol was in fact followed.   02:13PM

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1   Q   Do you know whether that was done here?

2   A   No.

3   Q   What does the term trimming mean to you in the

4   hedonics context?

5   A   There's all sort of jargon that's used in all   02:14PM

6   statistical models. I'm not going to sit here and

7   speculate about the definition of trimming. If you

8   want to show me a document that uses the term, I'll

9   certainly assess it for you, but I attempt to stay

10   away from jargon in my work.   02:14PM

11   Q   Fair enough. Other than the exclusions that

12   are described in Footnote 10, are you aware of any

13   exclusions made to the dataset?

14   A   I've already explained to you some exclusions

15   that went to looking at what the potential effect   02:15PM

16   would be of outliers and focusing on eliminating the

17   tails in the distribution to see how sensitive the

18   results were to such eliminations.

19   Q   Do you know whether observations were dropped

20   at the low end?   02:15PM

21   A   In that sensitivity analysis I just described,

22   that would have been the normal course of accuracy

23   and sensitivity analysis that's conducted in any

24   statistical models that are assessed and evaluated

25   by my staff at OnPoint Analytics.   02:16PM

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1   Q   Do you know what was done here?

2   A   I know that it was done. I don't know

3   specifically what was done.

4   Q   Do you know whether observations were dropped

5   on the high end?   02:16PM

6   A   In the sensitivity analysis with regard to

7   outliers, I've already told you, yes.

8   Q   Do you know what was done here?

9   A   I know that it was done. I don't know

10   specifically what was done, whether it was a   02:16PM

11   statistical outlier analysis or whether they chose

12   simply to look at reducing the tails and looking at

13   the remaining observations.

14   Q   And who would have made the decision to reduce

15   the tails?   02:17PM

16   A   That would have been the normal course of the

17   statistical accuracy analysis that's conducted by

18   data analysts at OnPoint Analytics.

19   Q   And my question is, who specifically in this

20   case would have made the decision to reduce the   02:17PM

21   tails?

22   A   That is a company decision. It's not a

23   decision that is determined by any one person. It

24   is done in the normal course of business, and the

25   analyst, in this case, Lisa Keating, would have had   02:17PM

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1   that as an available sensitivity analysis, and she

2   would have reviewed it.

3   Q   Do you recall dropping observations on the low

4   end in the McCluskey paper?

5   A   Do I recall? This paper was written ten years   02:18PM

6   ago, so I'd like the opportunity to review it.

7   Q   Dr. Rausser, I'm not trying to give you a hard

8   time. I'm just trying to find out what you can

9   recall. So why don't you turn to Footnote 10 of the

10   McCluskey paper, which is Exhibit 16.   02:19PM

11   A   Yes.

12   Q   Okay. Have you reviewed Footnote 10?

13   A   Yes.

14   Q   Okay. Can you read that aloud for me?

15   A   As part of our data protocols, we exclude   02:19PM

16   observations that seem unreasonable. The

17   unreasonable observations are those with any of the

18   following characteristics: Price less than $4,000,

19   lot size greater than 43,560 square feet or less

20   than 400 square feet, and living area less than 400   02:19PM

21   square feet.

22   Q   Okay. Now this suggests that there was no

23   dropping of observations at the high price end;

24   correct?

25   A   With regard to exhibit —   02:19PM

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1   Q   In the McCluskey paper, correct.

2   A   Yes, in Footnote No. 10, yes.

3   Q   Now, you mentioned earlier the issue of

4   outliers and potentially dropping outliers on the

5   high end. Did I understand you correctly?   02:20PM

6   A   You did.

7   Q   Okay. How do you define an outlier?

8   A   Well, ideally an outlier is an observation

9   that is not drawn from the population from which

10   you're attempting to draw inferences about.   02:20PM

11   Q   And what kind of analysis is done to determine

12   whether outliers should be dropped from the high

13   end?

14   A   There's all sorts of mechanical routines for

15   identifying outliers and determining whether they   02:21PM

16   are drawn from a distribution that is different than

17   the distribution of the population underlying the

18   sample that you're evaluating.

19   Q   Now, in your view would it be appropriate to

20   exclude observations on the high end without looking   02:21PM

21   at the particulars of those observations?

22   A   Everything else constant, you would prefer to

23   have concrete information, not only on the high end

24   but as well on the low end.

25   Q   So help me understand. What kind of   02:22PM

1   information would you look at?

2   A   In the case of property values, the kind of

3   information you would look at is the underlying

4   transfer of property rights or deeds of trust and

5   who the parties were to those particular   02:22PM

6   transactions. That would certainly be one bit of

7   information that's outside the sample that could be

8   evaluated to assist with regard to determining

9   whether it's drawn from a different population than

10 the population that you're attempting to draw   02:22PM

11 inferences about.

12 Q   And is it your view that that's the

13 appropriate analysis to do with regard to high-end

14 and low-end observations?

15 A   That's an example of an appropriate analysis.   02:23PM

16 The key is to use information from outside of the

17 sample to be able to inform your analysis about

18 whether specific observations may be drawn from a

19 different underlying population distribution.

20 Q   Do you know what was done in this case?   02:23PM

21 A   I've already explained to you what was done in

22 this case. There are standard practices that are in

23 place at OnPoint Analytics that would look at two

24 different mechanisms for dealing with potential

25 outliers. One is simply to drop the tails of the   02:24PM

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1   distribution, all those observations below .05 on

2   the probability density function and all those

3   observations above .95. There is another set of

4   statistical protocols that go to measuring the

5   distance between specific extreme observations and   02:24PM

6   observations within the concentrated part of the

7   sample, and those are very complicated steps that

8   involve formal criteria that have been developed by

9   the statistical literature with respect to software

10 routines for dropping such observations, and both of   02:24PM

11 those two protocols are in place at OnPoint

12 Analytics with regard, as I indicated, to

13 statistical analysis that are conducted based on

14 economic data or statistical data.

15 Q   So with regard to this standard protocol at   02:25PM

16 OnPoint in terms of dropping the tails, is there a

17 specific percentage -- I think you mentioned it --

18 that is always followed?

19 A   No. In the first case there is with respect

20 to dropping the tails, 5 percent of the observations   02:25PM

21 at the low end, 5 percent of the observations at the

22 high end, which would mean you would end up dropping

23 10 percent of the observations, but with regard to

24 the more complicated statistical protocols, you may

25 end up dropping a half a percent of the total   02:25PM

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1   population. It depends upon the characteristics of

2   the data itself.

3   Q   And who does the analysis to determine whether

4   it's 5 percent or 1 percent?

5   A   The data architects or analysts have both   02:26PM

6   routines in place. They simply turn on a dial and

7   they get both sets of results. They don't make the

8   decisions. They simply report it.

9   Q   Okay. I'm just trying to understand how it

10 works. So if I understand correctly, both protocols   02:26PM

11 are run and both results are reported to the

12 analyst?

13 A   Generally speaking, yes.

14 Q   Okay. Do you know whether those results have

15 been turned over in this case?   02:26PM

16 A   I do not.

17 Q   Do you expect that the running of those

18 protocols occurred with regard to the data here?

19 A   As is normal practice at OnPoint is to run

20 that. If it has no implications with regard to the   02:27PM

21 analysis we've conducted and we haven't relied upon

22 it, no, I wouldn't expect it to be reported. If we

23 did rely upon it and reported it in our actual

24 declaration, then I would expect it to be included.

25 Q   But is it your belief that Lisa Keating would   02:27PM

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1   have received the results of the running of those

2   two protocols?

3   A   Yes.

4   Q   Okay. Let me hand you Exhibit 17, and this

5   document came out of your considered materials. Do   02:28PM

6   you recognize this document?

7   A   Yes.

8   Q   What is it?

9   A   This is a document that indicates the

10 directions and instructions that Lisa Keating   02:29PM

11 specified with regard to the software routine, I

12 think this is data, on estimating the models that

13 appear in Section 3.

14 Q   Okay. Did you review this at the time it was

15 prepared?   02:29PM

16 A   This specific document, no, but a discussion

17 with Lisa Keating about this document, yes.

18 Q   And what do you recall about that discussion?

19 A   That we wanted to look not only at the

20 additive effect of Tenkiller Lake vis-a-vis the base   02:30PM

21 but we also wanted to include an analysis looking at

22 the interaction effect year by year, and she

23 certainly has represented this in the instructions

24 that she prepared.

25 Q   Okay. If you'll turn to the first page,   02:30PM

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1 almost halfway down you'll see a line in caps that
2 says Excludes Sales Prior to 1995. Do you see that?
3 A   Yes.
4 Q   Then going five lines below that, there's a
5 line of code that says keep if price, et cetera. Do   02:31PM
6 you see that line there?
7 A   Keep if price DEFSF, yes.
8 Q   Correct, okay. Does that line refer to the
9 dropping of the low end and the high end, so below 5
10 percent and above 95 percent?   02:31PM
11 A   I'd have to go back and look at it. It's
12 certainly suggestive of that, but as I indicated, I
13 haven't reviewed this specifically.
14 Q   Do you know what difference it would make to
15 your results if you dropped observations with   02:32PM
16 unusually low sales prices but not those with high
17 sales prices?
18 A   With respect to the second protocol that we
19 spoke about, mainly the statistical outliers, if
20 that particular routine resulted in just dropping   02:32PM
21 the low end, which I don't recall, but if that were
22 the case, then I certainly could review it and see
23 what its implications were, but I haven't and don't
24 recall whether that conditioning is correct, let
25 alone the interpretation.   02:33PM

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1 Q   So you don't know how that would impact your
2 results?
3 A   I do not.
4 Q   Now, the purpose of the hedonic study was to
5 examine the economic impact of reduced water quality   02:33PM
6 at Lake Tenkiller; correct?
7 A   Well, more than that. I think you'll see in
8 the opening paragraph of this section, it's not only
9 the reduced water quality or any other diminution in
10 the aesthetic or existence value of the lake.   02:33PM
11 Q   Okay, but in your report you cite to three
12 studies in the literature that evaluate the economic
13 impact of reduced water quality, don't you?
14 A   I do.
15 Q   Okay. Let me first give you the Gibbs study   02:34PM
16 that you cite, and we'll mark this as Exhibit 18.
17 Can you tell me what measure they used for water
18 clarity in their model?
19 A   Well, they certainly are representing that the
20 measure that they've used is a function of the   02:35PM
21 nutrients in the lake, but you're asking me a more
22 specific question. You want me to find exactly the
23 scientific measure of what they used with regard to
24 that functional relationship with nutrients?
25 Q   I do.   02:35PM

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1 A   Water clarity in meters as calculated by
2 Secchi measurements. I'm not sure I pronounced that
3 correctly. So they've got a formal scientific
4 measurement that they have used for that purpose.
5 Q   In connection with your work on the hedonic   02:36PM
6 model here, did you review the three studies from
7 the literature that you cite in Chapter 3?
8 A   As background information, I would have seen
9 these articles well before the preparation of this
10 report. So did I review them at some point in time,   02:37PM
11 yes.
12 Q   Do you recall reviewing them specifically in
13 connection with this hedonic model that you used
14 here?
15 A   No.   02:37PM
16 Q   Let me also give you the Holly Michaels study
17 that you cite and we'll mark this as Exhibit 19.
18 A   Thank you.
19 Q   And I'll ask you the same question here: Can
20 you tell me what measure they used for water clarity   02:37PM
21 in their model?
22 A   Well, they used nine different measures of
23 water clarity. You want me to give all nine of them
24 to you?
25 Q   I do.   02:38PM

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1 A   You do?
2   MS. MOLL: I'm being told it's time for a
3 tape change.
4   VIDEOGRAPHER: We are now off the Record.
5 The time is 2:39 p.m.   02:39PM
6   (Following a short recess at 2:39 p.m.,
7 proceedings continued on the Record at 2:56 p.m.)
8   VIDEOGRAPHER: We're back on the Record.
9 The time is 2:56 p.m.
10 A   All right. They have used a number of   02:56PM
11 different clarity metrics. One is current water
12 clarity, and in current water clarity they're using
13 a measure of minimum clarity for an entire year in
14 which a property was sold. They also have the
15 minimum clarity measurement for the prior year.   02:56PM
16 They have another category of metrics that go to
17 historical water clarity. In here they've used an
18 average of the minimum clarities for the summer
19 months for the ten years prior to a sales
20 transaction. They have a number of interaction   02:57PM
21 terms that they include with respect to the minimum
22 water clarity. They have an interaction term with
23 respect to improving water clarity. They also have
24 a delta in terms of the change with regard to the
25 current minimum vis-a-vis the historical minimum,   02:57PM

1 and then they have some water clarity measures with
2 regard to seasonal changes. One is the maximum
3 water clarity in their dataset. Another is the
4 percentage change in clarity over just the summer
5 months.   02:58PM
6 Q   Do you know what these measures are based on?
7 A   The same measurements that the earlier
8 article --
9 Q   That's -- I'm sorry.
10 A   Go ahead.   02:58PM
11 Q   I was just going to say and that's based on
12 Secchi disk readings?
13 A   Yes.
14 Q   Let me hand you Exhibit 20, which is out of
15 your materials, and it's the Poor study that was   02:59PM
16 identified in Chapter 3 of your report. I'm going
17 to ask you the same question. Can you tell me what
18 measure the Poor study authors used for water
19 quality in that model?
20 A   They refer to ambient water quality, and it's   02:59PM
21 a metric for suspended solids and dissolved
22 inorganic nitrogen.
23 Q   Do you know how many monitoring stations this
24 study used?
25 A   Yes.   03:00PM

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1 Q   How many?
2 A   22.
3 Q   Okay. What measure for water clarity do you
4 use in your hedonic study in this case?
5 A   The model is using a base metric with regard   03:00PM
6 to the base lake, and it's looking at the change in
7 Tenkiller across time with regard to any diminution
8 in property values that could be sourced with the
9 relative change in water quality of the base lake
10 versus Tenkiller that was base lake up above.   03:01PM
11 Q   Do you know how many monitoring stations there
12 are in Lake Tenkiller and Lake Eufaula?
13 A   I don't recall the specific numbers, but in
14 Section 2 there is information that was used with
15 regard to the clarity measurements for a number of   03:03PM
16 lakes within Oklahoma, including the two lakes that
17 are analyzed in Section 3. I don't recall the
18 number of monitoring stations.
19 Q   Okay. What specific information out of
20 Chapter 2 are you referring to?   03:03PM
21 A   I'm referring to the metric with regard to
22 water clarity that is used in the analysis that was
23 conducted in Section 2 that is sourced with the Army
24 Corps of Engineers.
25 Q   And on what page are you looking?   03:03PM

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1 A   I'm looking on Page 17 and 18 of the report.
2 Q   And why did you use that metric?
3 A   Because that was the metric that was available
4 from a third-party source, namely the Army Corps of
5 Engineers.   03:04PM
6 Q   Is it standard procedure in the literature to
7 use a dummy variable to represent water quality?
8 A   Depends on the purpose for which you are doing
9 the analysis. So there is no standard unless you
10 specify what the purpose is.   03:05PM
11 Q   Can you give me examples of studies that use a
12 dummy variable to represent water quality?
13 A   A study that was conducted by Seeco Zeusman on
14 water quality, both surface water quality and
15 groundwater quality, in the state of California,   03:06PM
16 used dummy variables for water quality and measured
17 its impacts.
18 Q   Any others?
19 A   I'm sure there are others, but I don't have
20 them at my fingertips.   03:07PM
21 Q   The Zeusman article, in what journal does that
22 appear?
23 A   I believe it's in a book chapter, although
24 there may be a refereed journal article as well. I
25 don't recall.   03:07PM

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1 Q   Do you know whether you cite that article in
2 your reference materials?
3 A   Do not.
4 Q   Do you know what year that article came out
5 roughly?   03:07PM
6 A   Early '90s.
7 Q   Do you know its title?
8 A   No.
9 Q   Why did you not use the metric that you
10 referenced in Chapter 2 in your hedonic study in   03:08PM
11 Chapter 3?
12 A   Because it is a relative analysis, and I'm
13 using a specific base there. In Section 2 we're not
14 using a benchmark analysis. Section 3 is a
15 benchmark analysis, and as a result, one does not   03:08PM
16 need to include all of the other potential
17 co-factors if they're embedded in the benchmark as
18 well as in the properties that you're looking at
19 near Tenkiller. That's why.
20 Q   And what literature do you rely on for the   03:08PM
21 approach that you took?
22 A   On the benchmark analysis?
23 Q   Yes.
24 A   All the literature and all the work that I've
25 done previously on property -- potential alleged   03:09PM

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1 property diminution resulting from environmental
2 contamination, including the work with Jill
3 McCluskey, which is not only the paper and the
4 review of economics and statistics, but as well a
5 paper that was published in the Journal of   03:09PM
6 Environmental Economics and Management, another
7 paper that was published in Contemporary Economic
8 Policy and the earlier work that I referred to that
9 you asked me about with respect to litigation. All
10 of that work is designed to use benchmark analysis, 03:09PM
11 and that's what Section 3 focuses on.
12 Q   Okay. I'd like for you to identify
13 specifically for me the articles that you're relying
14 on. So you've identified some in vague terms, but
15 if you could give me more specifics in terms of   03:10PM
16 years, journals, article titles, if you can recall
17 them.
18 A   Hazardous Waste Sites and Housing Appreciation
19 Rates, Journal of Environmental Economics and
20 Management, Volume 45, March 2003. Neighborhood   03:10PM
21 Effects in Compensation For Property Value
22 Diminution, Law & Policy. Estimation of Perceived
23 Risk and Its Effect on Property Values in Land
24 Economics, February 2001. With respect to the
25 litigation that we discussed earlier, Ford Motor   03:11PM

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1 Credit, vis-a-vis residential homeowners in the city
2 of Benecio, California, and I don't recall the
3 caption on the Dallas study, but that study, too,
4 was a -- at least with regard to the litigation and
5 the analysis was accepted by the court with regard 03:12PM
6 to the benchmark analysis. A series of studies that
7 was conducted while I was at the University of
8 Chicago on property diminution resulting from
9 diminution of air quality. That, too, was a
10 benchmark analysis, and --   03:13PM
11 Q   Let me interrupt.
12 A   No. I'm going to answer your question as you
13 posed it to me. You want details about where these
14 publications appear. Environmental Impacts on
15 Electricity Systems' Growth. It is published in   03:14PM
16 Environmental Pollutants and The Urban Economy. In
17 addition, an article that goes to bid analysis with
18 regard to the underlying theory for hedonics or
19 benchmark analysis is a paper published in the
20 Journal of Urban Economics that's entitled Pollution 03:15PM
21 and Land Use, Optimum and Decentralization, that
22 appears in 2008.
23 Q   What kind of analysis was done by Dale in the
24 1999 article?
25 A   By Dale?   03:16PM

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1 Q   Yeah.
2 A   My recollection is that Dale was an employee
3 at Law & Economics Consulting Group and worked on
4 one of the cases, litigation cases that I just
5 referred to, and he, through that litigation, had   03:16PM
6 access to the Dallas data, the City of Dallas data.
7 I think we cite that in one of the exhibits that
8 you've shown me this morning, in particular Exhibit
9 16, and his paper was published -- well, there are
10 four authors on this paper. This was published in   03:17PM
11 Land Economics, and your question now is what data
12 did he --
13 Q   What kind of analysis was conducted in Dale
14 1999?
15 A   Whether property values -- the fundamental   03:17PM
16 question, as I remember, was whether property values
17 recover after there is a remediation of some source,
18 presumed causal source of contamination.
19 Q   Was that a benchmark analysis?
20 A   I don't recall. If you have the paper, I'll   03:17PM
21 review it and tell you whether it's a benchmark
22 analysis.
23 Q   As you sit here, you don't know?
24 A   No, but I do know for a fact that he worked on
25 that case, an engagement in which I was a testifying 03:18PM

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1 expert.
2 Q   Do you know if there was a change in water
3 clarity in Lake Tenkiller over time?
4 A   That can be determined by looking at the
5 underlying data that's reported by the Army Corps of 03:18PM
6 Engineers, and we have produced that data. I don't
7 recall exactly what it shows; however, I do know
8 that, based on my benchmark analysis, that even if
9 there is some degradation, it is not reflected in
10 the inherent value relative to the base case that I 03:19PM
11 analyzed in Section 3.
12 Q   But you don't know how water quality changed
13 in Lake Tenkiller for the period 1995 to 2008?
14 A   I don't have that memorized. It is certainly
15 included in the underlying data that has been   03:19PM
16 produced that was used in Section 2 of our report.
17 Q   What if there had been no change in water
18 quality over that period?
19 A   What if there had been no change; what if with
20 regard to what?   03:19PM
21 Q   With regard to your conclusion in Chapter 3.
22 A   It wouldn't change my conclusion in chapter or
23 Section 3.
24 Q   Why not?
25 A   Because my conclusion is based on a benchmark   03:20PM

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1 analysis. It's based on the inherent value of
2 properties around one lake versus another lake.
3 Q   But wouldn't that mean that other factors
4 other than water quality would explain your
5 statistical results?   03:20PM
6 A   I haven't analyzed those other properties.
7 All I'm concerned about -- don't lose sight of the
8 purpose for my analysis. The purpose for my
9 analysis is to determine whether there's any
10 diminution, not what is the cause of that diminution   03:21PM
11 but is there any relative to the base, and there
12 isn't.
13 Q   Now, if water quality had remained the same
14 throughout the period 1995 to 2008, couldn't the
15 presence of the casino at Lake Eufaula explain your   03:21PM
16 benchmark result?
17 A   May I have the question back, please?
18   (Whereupon, the court reporter read
19 back the previous question.)
20 A   First of all, that question can't be answered   03:22PM
21 without knowing what the effect of the casino is.
22 Is the effect of the casino presumed to be positive
23 or is it negative?
24 Q   You didn't control for the casino; correct?
25 A   No, and I have no desire to do so, given the   03:22PM

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1 purpose for my analysis. Let's come back to your
2 prior question. If it had a positive effect, then
3 that would just strengthen my analysis if I removed
4 it. If it had a negative effect, then I would be
5 concerned about the relative inference or the   03:22PM
6 inferences that I've drawn based on the relative
7 value of nearby properties at each of the two lakes.
8 Q   Okay. We'll shift gears again to your report
9 at Exhibit 2. If you'd kindly turn to Footnote
10 65 --   03:23PM
11 A   Footnote 65?
12 Q   Yeah. On Page 100. Thank you.
13 A   Thank you.
14 Q   Do you have that in front of you?
15 A   I do.   03:24PM
16 Q   Would you kindly read Footnote 65 for me?
17 A   I will. That would appear to be a
18 typographical error, and I'm going to look at the
19 source data. I believe that should be 99 million
20 rather than -- is that trillions there?   03:24PM
21 Q   Can you read Footnote 65 for me?
22 A   Yes. Those respondents with coded incomes at
23 or over 99,999,999,998 are dropped from this
24 analysis.
25 Q   Okay, and you believe that to be in error?   03:24PM

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1 A   Yes.
2 Q   Why do you believe it to be in error?
3 A   Because my recollection is that there was no
4 coded incomes at above that level.
5 Q   And you wanted to look at the source data for   03:25PM
6 that in your binder. Would you take a look and see
7 if you can come up with a correct number there?
8 A   No. It's not in my source binder. I was just
9 checking to see if it was and it's not.
10 Q   But as you sit here now, you believe that   03:25PM
11 number should be in the millions?
12 A   That's my recollection, yes.
13 Q   Okay. So assuming that's the case, why did
14 you drop those observations?
15 A   As I indicated to you earlier, there is a   03:25PM
16 standard outlier analysis that we conduct at
17 OnPoint, and that outlier analysis would have
18 strongly suggested the elimination of such recorded
19 income levels.
20 Q   But why did you not impute income to those   03:26PM
21 observations?
22 A   Impute income you said?
23 Q   Yes.
24 A   I don't know what your question means.
25 Q   Aren't there statistical techniques for   03:26PM

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1 assigning incomes to observations like this in lieu
2 of dropping them?
3 A   Certainly, but it wouldn't have made any
4 difference in the analysis that's conducted here.
5 So why would any value be added by doing so?   03:26PM
6 Moreover, if you look at all the analyses that's
7 here, we focused on income levels reported from --
8 for the respondents that ranged between 0 and
9 $600,000 per year. So all observations on incomes
10 above $600,000 are not included in the analysis.   03:27PM
11 Q   Okay, and how many observations did you drop
12 on that basis?
13 A   It was a small number. I don't recall the
14 specific number, but you should have -- that has
15 been shared in our production of what we relied upon   03:27PM
16 in the analysis that we performed.
17 Q   Do you know whether it was more than a
18 hundred?
19 A   I don't recall.
20 Q   Okay. Would you turn the page to Page 102 of   03:27PM
21 your report and look at Table 5.5?
22 A   Yes.
23 Q   Okay. If you look at the first four rows that
24 correspond with the quartile grouping; do you see
25 that there?   03:28PM

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32 (Pages 122 to 125)

1 A   Yes, I do.
2 Q   How many calculations are used for the first
3 row of that grouping?
4 A   Namely from the 60,000 to 600,000 of income.
5 I don't have that memorized. Once again, it's been   03:28PM
6 produced.
7 Q   The first row there is the highest group,
8 income group; correct?
9 A   Yes.
10 Q   And is it the case that the average income for   03:28PM
11 observations in this group is 106,570?
12 A   For this group, the mean income is reported
13 there as 330,000.
14 Q   Would it surprise you if the number in the
15 output from this data code reported it as 106,570?   03:29PM
16 A   I'd have to see the code.
17 Q   And isn't it the case that the income
18 elasticity for this highest income group is .158?
19 A   No.
20 Q   What do you believe it to be?   03:30PM
21 A   I believe it to be what's reported in Table
22 5.1 based on the Logit model and namely including
23 all of the other explanatory variables that exist in
24 or for that particular quartile.
25 Q   Okay. Who prepared the code that was used in   03:30PM

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1 connection with Table 5.5?
2 A   Joanne Lee.
3 Q   And did you review it?
4 A   At some point, yes.
5 Q   Do you recall doing that?   03:30PM
6 A   Yes.
7 Q   How closely do you review the computer output
8 that Joanne Lee produces?
9 A   How closely? What do you mean how closely?
10 Q   Did you review the computer output that Joanne   03:31PM
11 Lee produced?
12 A   I reviewed the statistical results, yes.
13 Q   So to your knowledge, Table 5.5 is correct?
14 A   Yes.
15 Q   Do you know what the confidence intervals are   03:31PM
16 that relate to this table?
17 A   Table 5.5?
18 Q   Uh-huh.
19 A   I do, yes, with regard to the willingness to
20 pay that's computed off of that for each case, yes,   03:32PM
21 and you'll find that information in appendix Table
22 C-4 for the quintiles, not the quartiles, but we've
23 produced it for both the quartiles, quintiles and
24 sextiles.
25 Q   And how about the confidence intervals for the   03:33PM

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1 elasticities?
2 A   The income elasticity, I don't believe we
3 included that in the report, but that is computable
4 from what we have produced.
5 Q   So you haven't referred to that; correct?   03:33PM
6 A   Not in the — not in Exhibit 2, no.
7 Q   Well, have you produced it anywhere else?
8 A   It is implicit in what's been produced. One
9 can take the estimated elasticity off of the Logit
10 model and compute a confidence interval for that   03:34PM
11 specific parameter. That's not something we did or
12 produced, but it can be done.
13 Q   Okay. Give me a moment. Okay. I want to
14 spend some time going over the ABERS and Turbull
15 estimator issue.   03:36PM
16 A   I was looking forward to this.
17 Q   I have been as well, so we're on equal
18 footing. Have you read the paper by Bruce Turnbull
19 on Non-Parametric Estimation of a Doubly-Censored
20 Survivorship Function in the Journal of the American   03:36PM
21 Statistical Association?
22 A   Some years ago, yes.
23 Q   Did you consider it in connection with your
24 contribution to the Desvousges/Rousser report?
25 A   Implicitly I don't recall going back and   03:36PM

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1 reading it, but I read it some years ago, yes.
2 Q   But it wasn't in your considered materials;
3 correct?
4 A   It was not.
5 Q   Have you read the paper by Bruce Turnbull on   03:36PM
6 Non-Parametric Estimation of an Empirical
7 Distribution Function with Grouped Censored and
8 Truncated Data in the Journal of the Royal
9 Statistical Society?
10 A   Some years ago, yes, but not in preparation   03:37PM
11 for the report, Exhibit 2.
12 Q   And it was not in your considered or reference
13 materials; correct?
14 A   No, but substitutes, and I would argue perfect
15 substitutes were.   03:37PM
16 Q   And which do you feel are perfect substitutes?
17 A   Haab and McConnell that is referenced and was
18 produced that's entitled Valuing Environmental and
19 Natural Resources, the Econometrics of Non-Market
20 Valuation.   03:38PM
21 Q   Any others?
22 A   No. That's the perfect substitute to which I
23 was referring.
24 Q   Have you read the paper by Miriam Ayer, H. D.
25 Brunk, G. M. Ewing, W. T. Reid and Edward Silverman   03:38PM

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1 on Estimation of an Empirical Distribution Function
2 in the Annals of Mathematical Statistics?
3 A   I don't recall reading that article, no.
4 Q   Have you read the section of the book
5 Statistical Inference Under Order Restrictions by   03:38PM
6 Barlow, Bartholomew, Bremner and Brunk dealing with
7 isotonic regression?
8 A   No, I don't believe I have.
9 Q   And have you read a similar section of a book
10 Order Restricted Statistical Inference by Robertson,   03:39PM
11 Wright and Dijkstra?
12 A   Not that book, but I've read a number of
13 articles by Dextra — Dijkstra, but not that
14 particular book, no.
15 Q   Okay. Do you understand the acronym ABERS to   03:39PM
16 be a reference to an article by Ayer, et al?
17 A   Yes.
18 Q   Isn't the estimation problem considered in
19 that paper different from the estimation problem
20 considered by Turnbull?   03:39PM
21 A   My recollection is Turnbull generalizes that
22 particular estimator. That's my recollection.
23 Q   Do you know whether the estimation problem
24 considered by ABERS deals with data that is
25 left-centered or right-centered?   03:40PM

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1 A   I don't recall.
2 Q   Do you know whether the estimation problem
3 considered by Turnbull deals with data that is
4 interval censored or double-bounded data?
5 A   That's my recollection.   03:40PM
6 Q   Okay. Now, the CV survey conducted by the
7 Stratus team in this case involved what is known as
8 a single-bounded question format; isn't that right?
9 A   Yes.
10 Q   And a CV survey that employs a single-bounded   03:40PM
11 question format generates response data that is
12 either left-centered or right-centered; isn't that
13 right?
14 A   Yes.
15 Q   And it does not generate response data that is 03:41PM
16 interval censored; is that correct?
17 A   Correct.
18 Q   Now, I believe you agreed with me when I asked
19 whether the estimation problem considered by
20 Turnbull dealt with data that are interval censored 03:41PM
21 or double bounded; correct?
22 A   As I indicated, he generalized ABER and,
23 moreover, included the instance of an indifference
24 — indifferent response.
25 Q   Let me hand you Exhibit 21, which is an   03:42PM

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1 article entitled An Empirical Distribution Function
2 For Sampling With Incomplete Information by Miriam
3 Ayer, H. D. Brunk, G. M. Ewing, W. T. Reid, Edward
4 Silverman that was published in The Annals of
5 Mathematical Statistics in 1955. Once you've had an   03:42PM
6 opportunity to look at it, can you tell me whether
7 the estimation problem considered by ABERS dealt
8 with data that are left-censored or right-censored?
9   MS. MOLL: Why don't we go off the Record
10 while Dr. Rausser finishes reading the article.   03:49PM
11   VIDEOGRAPHER: We're now off the Record.
12 The time is 3:49 p.m.
13   (Whereupon, a discussion was held off
14 the Record.)
15   VIDEOGRAPHER: We are back on the Record.   03:50PM
16 The time is 3:50 p.m.
17 A   I don't see where they use any language with
18 regard to right or left-censored. I would have to
19 go through the mathematical derivations to determine
20 which of those two it is. It's not language that   03:51PM
21 they use in this paper.
22 Q   Okay. Turn with me to Page 641 of the paper.
23 A   Yes.
24 Q   I'm looking in the introduction section.
25 Starting on the second line it says, there are,   03:51PM

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1 however, certain investigations of which examples
2 are to be found in a number of different fields in
3 which the result of each observation is not a sample
4 value of the random variable being tested but only a
5 number together with the information that the sample 03:51PM
6 value is less than or is greater than that number.
7 Bioassay furnishes an example, et cetera. Does that
8 suggest to you that ABERS was dealing with data that
9 are left-censored or right-censored?
10 A   I would have to go back and do the derivation. 03:51PM
11 I haven't done so, so I'm not prepared to answer
12 that question.
13 Q   Okay. Now, after doing the derivation that
14 you just mentioned, if you came to the conclusion
15 that ABERS was dealing with data that is either   03:52PM
16 left-censored or right-censored, wouldn't you agree
17 that the data from the CV survey here would merit
18 using the ABERS estimator and not the Turnbull
19 estimator?
20 A   Are we talking about the cumulative   03:52PM
21 distribution or are we talking about the probability
22 density function?
23 Q   Well, let me ask you a different question.
24 Why did you invoke the Turnbull estimator in your
25 own report?   03:53PM

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1   A   Because there are a number of violations of
2   both the ABERS and the Turnbull with respect to the
3   underlying assumption of an empirical distribution
4   that is monotonically increasing, and that condition
5   is violated, and when it's violated, the authors of   03:53PM
6   the Stratus study argued that they were using a
7   conservative estimate, and it turns out to be false.
8   Why is it false? It's false because when you move
9   from the cumulative distribution to the density
10   function, they used a procedure for pooling and   03:54PM
11   reweighting to correct for that anomaly, in which
12   they weren't conservative and did not use what is in
13   fact the representation in the literature of the
14   Turnbull estimate of the willingness to pay.
15   Now, it's my understanding that the authors   03:54PM
16   have argued that there is no difference in the
17   Turnbull versus the ABERS with regard to estimating
18   the cumulative distribution and, moreover, I
19   listened in on some of the deposition testimony and
20   I heard just such statements being made. That is   03:54PM
21   true with regard to the cumulative distribution, but
22   it's not true with regard to the derivation of the
23   density function when anomalies take place, and
24   that's why I used the Turnbull estimator of the
25   willingness to pay off the density function.   03:55PM

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1   Q   And did you rely on an excerpt of the Haab and
2   McConnell book in your own work on that?
3   A   Yes, I did.
4   Q   Okay. Let me hand you Exhibit 22, which is
5   out of your considered materials. Is this the   03:55PM
6   excerpt from Haab and McConnell that you're
7   referring to?
8   A   That's part of it, yes.
9   Q   And when you say it's part of it, what do you
10   mean?   03:56PM
11   A   What I mean is that there are other parts of
12   the book that go directly to treating the anomalies
13   that I spoke about, namely violations of the
14   underlying assumptions with regard to the
15   non-parametric estimator, whether ABERS or Turnbull.   03:56PM
16   Q   And did you produce those in your considered
17   materials?
18   A   I produced a reference to the entire book. I
19   didn't think it was necessary to produce the book,
20   given that the authors of the Stratus study, at   03:56PM
21   least a subset of those authors, have used that
22   textbook in courses that they've taught at various
23   universities.
24   Q   Well, you've produced an excerpt from the
25   book. So my question is, what other parts of the   03:57PM

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1   book did you rely on?
2   A   I think there's another part of the book that
3   speaks directly to the anomalies.
4   MS. MOLL: It's time for a tape change I'm
5   told.   03:58PM
6   VIDEOGRAPHER: We are now off the Record.
7   The time is 3:58 p.m.
8   (Following a short recess at 3:58 p.m.,
9   proceedings continued on the Record at 4:17 p.m.)
10   VIDEOGRAPHER: We are back on the Record.   04:17PM
11   The time is 4:17 p.m.
12   A   Point of clarification with regard to Table
13   5.5, what's referred to in the second column is the
14   midpoint of the range, not mean income. All of the
15   elasticities that are reported there were done at   04:18PM
16   the mean of that grouping of the probability
17   distribution.
18   So coming back to your question, if the mean
19   were 158,000 for that quartile, no, it wouldn't
20   surprise me at all.   04:18PM
21   Q   The Record will reflect that we were off the
22   Record from 3:58 to 4:17 p.m. Dr. Rausser, who did
23   you talk to during the break?
24   A   I talked to my staff at OnPoint to make sure
25   that the data that was reported in Table 5.5 was in   04:18PM

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1   fact correct.
2   Q   Who specifically did you speak with?
3   A   Joanne Lee.
4   Q   So your only correction to the table, Table
5   5.5, is that mean income should instead refer to   04:19PM
6   midpoint of income?
7   A   Yes, for that grouping, depending on whether
8   it's quartile, quintile or sextile, and in that
9   regard, too, paragraph -- that footnote you asked me
10   about on Page 100 is in fact correct. There was   04:19PM
11   some coding from Stratus that indicated that income
12   levels were above 99 billion or whatever it is.
13   Q   And who did you speak with on that footnote?
14   A   Joanne Lee.
15   Q   I've handed you Exhibit 23, which is a chapter   04:19PM
16   out of a book by B. J. T. Morgan, Analysis of
17   Quantal Response Data, and let me point your
18   attention to an excerpt in Section 7.2?
19   A   7.2?
20   Q   Yes. On Page 304 entitled The   04:21PM
21   Pool-Adjacent-Violators-Algorithm; ABERS estimate.
22   If you would kindly review the paragraph under the
23   section heading.
24   A   The entire section?
25   Q   Just that paragraph.   04:21PM

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35 (Pages 134 to 137)

1 A The first paragraph?	1 A It gives the pooling proportions. This is not
2 Q Correct.	2 the estimate of the mean.
3 A Yes.	3 Q So when you refer to the pooling of the
4 Q Okay. So starting five lines from the bottom	4 responses, you're referring to the proportions after
5 the text reads, as it was originally propounded by 04:21PM	5 the adjustment at doses 4 and 8 and doses 128 and 04:26PM
6 Ayer, et al, 1955, the resulting estimate is	6 256?
7 sometimes called the ABERS estimate. It is obtained	7 A Yes.
8 by a straightforward algorithm called the	8 Q And he assigns the same proportion to both
9 Pool-Adjacent-Violators-Algorithm, which proceeds as	9 dose levels; isn't that right?
10 follows. Do you see that? 04:22PM	10 A Yes. 04:26PM
11 A I do.	11 Q Now, in the work you did here, you did not
12 Q On the next page, Page 305, it sets forth	12 adjust the proportions as shown in Morgan's table
13 Example 7.1 with a table. Do you see that? Spend a	13 using the ABERS estimate or the
14 moment to familiarize yourself with that table, if	14 Pool-Adjacent-Violators-Algorithm as it's described
15 you would. 04:22PM	15 here; right? 04:27PM
16 A Just on that page?	16 A Certainly I did. When I reported the ABERS, I
17 Q Yes.	17 certainly did.
18 A Okay.	18 Q But didn't you use the calculation set out in
19 Q Now, this table shows the proportions of	19 the portion of Haab and McConnell that you produced?
20 subjects responding to various doses; isn't that 04:23PM	20 A Only for the Turnbull estimator, but I 04:27PM
21 correct?	21 reported both.
22 A Yes.	22 Q Let me turn your attention back to Exhibit 22,
23 Q And the successive rows refer to higher and	23 which is the excerpt from Haab and McConnell.
24 higher doses as it progresses; correct?	24 A Exhibit 22.
25 A Correct. 04:23PM	25 Q Okay, and if you look at Page 77, Table 3.5, 04:28PM
138	140
1 Q And the fourth column gives the proportions;	1 isn't that the calculation that you used in setting
2 is that right?	2 out your Turnbull estimation?
3 A Yes.	3 A Yes.
4 Q And do you agree that the proportions in the	4 Q Now, if I look in the unrestricted column of
5 fourth column should be increasing because higher 04:24PM	5 Table 3.5 on the exhibit you have in front of you, 04:29PM
6 doses should produce a higher number of responses?	6 the first through third rows are non-monotonic;
7 A Do I agree? I haven't evaluated the data that	7 isn't that right?
8 they're looking at. With regard to the underlying	8 A The – in Table 3.5?
9 specifications of ABERS or Turnbull, the expectation	9 Q Yes.
10 is it's monotonically increasing. So from that 04:24PM	10 A I'd have to go back and refresh my memory 04:29PM
11 standpoint, the theory of the underlying	11 about what his symbols are. You said the first row
12 non-parametric approach is that it should be	12 as well is non-monotonic?
13 monotonically increasing, but I'm not making an	13 Q Am I correct that the first through third rows
14 assessment about this data.	14 are non-monotonic?
15 Q Understood. Now, in two cases, in the actual 04:24PM	15 A I'd have to go back and look at the definition 04:30PM
16 data that's reported here, the proportions failed to	16 of his symbols. If you are representing the
17 increase; isn't that right?	17 response is NJ, but I would have to look at how he's
18 A That is correct, in two instances. For a dose	18 defining NJ, there is the decline, which would
19 moving from four to eight, it violates. That's the	19 indicate a non-monotonic response from that first
20 anomalies I was speaking about earlier and, again, 04:25PM	20 row to the second row. I don't see the 04:31PM
21 in moving from a dose of 128 to 256, it violates the	21 non-monotonic, given that NJ is the response, from
22 underlying assumption.	22 the second to the third row.
23 Q Okay, and the last column in this table gives	23 Q So if you made that assumption, what would
24 the ABERS estimate of the proportions, isn't that	24 your answer be?
25 right? 04:25PM	25 A That in movement from the cumulative 04:31PM
139	141

1 distribution to the Turnbull, looking at the
2 cumulative distribution, there is a pooling that
3 takes place, and the probability mass or the density
4 function is a computed by looking at the adjustment
5 that takes place at the lower value, pooled back,   04:32PM
6 being consistent with the lower value of the
7 interval in question.
8 **Q   So here Haab and McConnell are pooling the**
9 **first two rows; isn't that right?**
10 A   Yes, and I'm confused by your reference about   04:32PM
11 the third row.
12 **Q   Well, let's stick with the first and second**
13 **rows.**
14 A   Fine.
15 **Q   Okay. So they pool the first two rows, and**   04:32PM
16 **the pooled proportion is .343; correct?**
17 A   Yes.
18 **Q   But they don't assign the proportion to both**
19 **rows; isn't that right?**
20 A   That's right.   04:33PM
21 **Q   So this is different from what Morgan did in**
22 **the table we looked at earlier; right?**
23 A   That table being on 305 of Exhibit 23?
24 **Q   Yes.**
25 A   Yes. Yes, that is different.   04:34PM

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1 **Q   Now, if Haab and McConnell had made a mistake,**
2 **that would invalidate your estimator, wouldn't it?**
3 A   No.
4 **Q   Why?**
5 A   Because there's an anomaly in the empirical   04:34PM
6 data and, moreover, with any anomaly, when you move
7 to the density function, there are all sorts of
8 procedures that could be followed with regard to
9 assigning and adjusting for the particular
10 probability mass at different points along the   04:34PM
11 distribution. There is no prescription about the
12 right answer. If you are going to proceed
13 conservatively as the Stratus people represented
14 they were doing, then a more conservative approach
15 would be to make the adjustment in the density   04:35PM
16 function that weights the mass at the lower
17 estimate, not the higher estimate, and what in
18 effect is being done in Exhibit 23 and what the
19 authors of the Stratus report did was concentrate
20 the mass at the higher point and, moreover, in the   04:35PM
21 files that were produced by a subset of the
22 co-authors in the Stratus report, they represented
23 that they in fact were following the Turnbull
24 procedure as represented in Exhibit 22 and, in fact,
25 they weren't.   04:36PM

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1 **Q   Do you know of any application in the**
2 **statistical literature where a statistician doing a**
3 **non-parametric maximum likelihood estimation of**
4 **singly censored data with monotonicity imposed uses**
5 **the algorithm of Haab and McConnell?**   04:36PM
6 A   Haab and McConnell.
7 **Q   Other than Haab and McConnell?**
8 A   My recollection is Mr. or Dr. Morey
9 represented that he has done such in such
10 literature. I haven't reviewed his publications,   04:37PM
11 but he certainly had file copies where he
12 represented the only time there would be any
13 difference between the mean estimate coming off of a
14 probability mass adjustment along the lines of
15 Exhibit 22 versus Exhibit 23 would be a coding   04:37PM
16 error, and that's false.
17 **Q   Well, my question was, do you know of any**
18 **application in the statistical literature where a**
19 **statistician doing a non-parametric maximum**
20 **likelihood estimation of singly censored data with** 04:37PM
21 **monotonicity imposed uses the algorithm of Haab and**
22 **McConnell, other than Haab and McConnell?**
23 A   I'd have to go back and review the literature.
24 I didn't come memorized with all of the different
25 adjustments that various authors have made to   04:38PM

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1 anomalies in their empirical cumulative distribution
2 in moving to a probability mass estimation, but I
3 can represent to you that any professional, who
4 wanted his estimates to be conservative would have
5 chosen the procedure for mechanically making the   04:38PM
6 adjustment, would have preferred the approach that's
7 listed in Exhibit 22, not Exhibit 23.
8 **Q   As you sit here today, you cannot identify any**
9 **such literature, can you?**
10 A   I don't have that literature memorized, so the   04:39PM
11 answer is no.
12 **Q   Do you know of any application in the**
13 **statistical literature where a statistician doing a**
14 **non-parametric maximum likelihood estimation of**
15 **singly censored data with monotonicity imposed uses** 04:39PM
16 **something other than the Ayer, et al, ABERS**
17 **estimator?**
18 A   I'm having difficult with how that question is
19 different from the prior question. I don't recall.
20 **Q   Which procedures are maximum likelihood?**   04:39PM
21 A   That's too general a question to respond to.
22 There are a whole bunch of procedures that are
23 maximum likelihood estimators, both parametric and
24 non-parametric.
25 **Q   Do you agree with me that the criterion for**   04:39PM

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1 the estimation is maximization of the likelihood
2 function subject to a monotonicity constraint?
3 A   Yes.
4 Q   And do you agree that the goal of the
5 estimator is to achieve maximum likelihood   04:40PM
6 estimation?
7 A   By definition, yes.
8 Q   Going back to the Ayer, et al, paper, Exhibit
9 21, the authors there proved that the ABERS
10 estimator is the non-parametric maximum likelihood   04:40PM
11 estimation of singly censored data with monotonicity
12 imposed, don't they?
13 A   Yes, with the proviso that they do not include
14 the proof with regard to Theorem 2.2 but, yes,
15 basically.   04:42PM
16 Q   Do Haab and McConnell offer a proof that their
17 estimator is the non-parametric maximum likelihood
18 estimation of singly censored data with monotonicity
19 imposed?
20 A   In Exhibit 22 the answer to your question is   04:43PM
21 no, but they're focusing on not the maximum
22 likelihood estimator for the cumulative
23 distribution, but instead they're focusing on the
24 rules by which one moves from that cumulative
25 distribution when there are anomalies to a density   04:43PM

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1 function with the purpose of estimating the
2 willingness to pay, which, as I understand it from
3 the Stratus study, is what they base all of their
4 damage calculations on, not on the cumulative
5 distribution.   04:43PM
6 Q   Well, where do Haab and McConnell offer their
7 proof in Exhibit 22?
8 A   I already explained it. They don't offer
9 proof. I already said that in my answer to your
10 question.
11 Q   Dr. Rausser, I'm not trying to be difficult
12 here, and we can fuss all day, but let's just try to
13 get through this.
14 A   They don't offer a proof in Exhibit 22.
15 Q   Have you ever reviewed the proof that they do   04:44PM
16 offer?
17 A   I do recall a formal derivation, but I don't
18 recall it as a proof of a particular theorem. I
19 don't recall.
20 Q   Do you know whether their proof is incomplete?   04:45PM
21 A   Do you have a document with regard to their
22 proof?
23 Q   Well, have you considered the proof in
24 connection with this matter?
25 A   I certainly considered their proof with regard   04:45PM

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1 to the cumulative distribution and satisfied myself
2 that that was in fact correct.
3   With respect to adjusting for violations,
4 namely violation of the constraint under which that
5 proof is derived, including the Exhibit 21 that   04:45PM
6 don't evaluate anomalies, I considered their
7 adjustments that are required when that constraint
8 is violated, and the violation of the constraint, as
9 I indicated, leads to adjustments that are made in
10 the density function, which one needs to be able to   04:46PM
11 determine the mass that exists, the probability mass
12 that exists at each point that allows one to compute
13 the willingness to pay, the mean willingness to pay,
14 and I don't recall them providing any proof with
15 regard to the mean willingness to pay.   04:46PM
16 Q   Let's switch gears and go back to your report
17 to Page 94.
18 A   Yes.
19 Q   Okay. Just give me a moment here. Okay. I
20 led you to the wrong page. 93.   04:48PM
21 A   93.
22 Q   Sorry about that. If you look to the first
23 full paragraph starting with the second sentence, if
24 you could read that paragraph for me.
25 A   Starting with the second sentence?   04:48PM

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1 Q   Yeah, following the Stratus report.
2 A   Following the Stratus report, we used a
3 jackknife bootstrap to obtain standard errors for
4 the ABERS estimates, as well as confidence intervals
5 for empirical cumulative distribution throughout   04:49PM
6 this analysis. However, since the jackknife
7 procedure requires more than one primary sampling
8 unit in a stratum, the structure of the survey makes
9 it impossible to use the jackknife procedure on many
10 subpopulations of interest, such as passive versus   04:49PM
11 active users in the survey. When this is the case
12 for the ABERS estimate, we'd leave the appropriate
13 column row blank. For the Turnbull estimator, we
14 used an asymptotic theory throughout to generate
15 standard errors for every subpopulation.   04:49PM
16 Q   Now, Stratus team used the jackknife repeated
17 replication; correct?
18 A   Yes.
19 Q   What software did you use to estimate the
20 asymptotic errors that you describe on Page 94 of   04:50PM
21 your report?
22 A   What software did you say?
23 Q   Yes.
24 A   We didn't use a standard cookbook routine for
25 doing that estimate. We developed our own code for   04:51PM

1 doing so.
2 Q   Who developed that code?
3 A   Joanne Lee.
4 Q   Did you review the code?
5 A   Yes.   04:51PM
6 Q   And did the code use a variance estimation
7 procedure that takes into account the impact of the
8 clustering and weighting of the data on the
9 variability of the estimates?
10 A   May I have the question back, please?
11   (Whereupon, the court reporter read
12 back the previous question.)
13 A   My recollection is that it did.
14 Q   And how did the code take the weighting and
15 clustering of the data into account?   04:52PM
16 A   By following the methodology that's set out in
17 Haab and McConnell, following the same mathematical
18 specifications that are included in their book.
19 Q   And when you say the mathematical
20 specifications, are you referring specifically to   04:52PM
21 what appears in Exhibit 22?
22 A   Yes.
23 Q   Let's turn to Exhibit 22. Can you identify
24 for me where Haab and McConnell specify how to
25 handle clustered survey data?   04:53PM

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1 A   By the procedures for which they outline
2 computing the lower bound on the willingness to pay
3 with multiple bids. This procedure implicitly
4 embeds in it whatever clustering is reflected in
5 empirical distribution.   04:55PM
6 Q   There's a difference between parametric and
7 non-parametric estimation; correct?
8 A   Yes.
9 Q   And parametric estimation involves the use of
10 an assumed functional form; is that right?   04:56PM
11 A   Yes.
12 Q   And an assumed probability distribution for
13 the data being estimated; correct?
14 A   False.
15 Q   Okay. What is false about that?   04:56PM
16 A   It doesn't necessarily assume -- a parametric
17 procedure doesn't necessarily assume an underlying
18 probability distribution. That's false.
19 Q   Okay. Turn with me to the Chapman, et al,
20 report, which is here, Exhibit 10 of Mr. Chapman's 04:56PM
21 deposition.
22 A   Mr. Chapman's deposition?
23 Q   Yes. That was a deposition exhibit. Instead
24 of making a new exhibit --
25 A   I see. Okay.   04:57PM

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1 Q   If you could turn to Page 6-29.
2 A   Page 6 --
3   MR. DEIHL: If we could take a moment, I
4 want to get my copy of the report, which is in the
5 other room.   04:57PM
6   MS. MOLL: Sure. Let's go off the Record.
7   VIDEOGRAPHER: We're off the Record. The
8 time is 4:57.
9   (Following a short recess at 4:57 p.m.,
10 proceedings continued on the Record at 5:01 p.m.)   05:01PM
11   VIDEOGRAPHER: We're back on the Record.
12 The time is 5:01 p.m.
13 Q   Before the break I asked you to turn to Page
14 6-29 of the Stratus CV report, which is a deposition
15 exhibit from David Chapman's deposition, Exhibit No. 05:02PM
16 10. Do you have that in front of you?
17 A   I do. Table 6.26.
18 Q   Correct. This is a parametric regression
19 analysis of the survey responses; correct?
20 A   Yes.   05:02PM
21 Q   And this parametric regression contains a
22 price variable labeled cost, does it not?
23 A   Yes.
24 Q   And it also contains an income variable;
25 correct?   05:02PM

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1 A   Yes, it does.
2 Q   So this parametric regression would,
3 therefore, yield a price elasticity and an income
4 elasticity; correct?
5 A   Do you mean by yield that you could compute   05:02PM
6 such an elasticity?
7 Q   Yes.
8 A   Yes.
9 Q   Let's turn back to Page 98 of your report,
10 Exhibit 2, and here you mention a meta-analysis of   05:03PM
11 income elasticities of willingness to pay for
12 environmental goods from CV studies conducted by
13 Jacobsen and Hanley; correct?
14 A   Which page are we?
15 Q   Page 98 of your report.   05:03PM
16 A   98. Yes.
17 Q   Have you read that study by Jacobsen and
18 Hanley?
19 A   Yes.
20 Q   Let me hand you Exhibit 24, which is a copy of 05:05PM
21 that study out of your considered materials. Now,
22 this states that they synthesized 46 CV studies;
23 correct? I'm getting that from the abstract.
24 A   Yes.
25 Q   Okay, and if you'll turn to Appendix 1 within 05:06PM

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39 (Pages 150 to 153)

1 this document, and to get there, if you look at the
2 Bates number, which is Desvousges/Rausser 538.
3 A   I'm sorry, you lost me. 538?
4 Q   Okay. The easy way to get there is looking at
5 the Bates number.   05:06PM
6 A   Ahh, thank you.
7 Q   So it's on Desvousges/Rausser 538. So are we
8 on the same page here?
9 A   Appendix 1, studies include in, yes.
10 Q   Okay. So the first study identified there is   05:07PM
11 a study by, and I'll get the name wrong, but it's
12 Amigues, et al, 2002; do you see that?
13 A   I see that as 2000. I'm sorry. Where do you
14 see 2002?
15 Q   In the reference column. The year of the   05:07PM
16 study is listed as 2000 but the reference is
17 Amigues, et al, 2002.
18 A   Oh, yes. I'm sorry.
19 Q   That's okay. So with regard to that study,
20 does the income elasticity in that study come from a   05:07PM
21 parametric analysis or a non-parametric analysis of
22 CV responses?
23 A   You expect me to have memorized what each of
24 these studies did with regard to parametric and
25 non-parametric?   05:08PM

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1 Q   I'm just asking if you know.
2 A   I don't recall, but I will represent to you
3 that if they generated their willingness to pay on
4 which damages are based on a cumulative distribution
5 but then go to a parametric distribution to draw   05:08PM
6 inferences, strikes me as inconsistent.
7 Q   I'm going to move to strike your answer as
8 non-responsive. Do you know if any of the 46
9 studies that are listed here generate an income
10 elasticity from a non-parametric analysis?   05:08PM
11 A   No.
12   MS. MOLL: Could you read back my question?
13   (Whereupon, the court reporter read
14 back the previous question.)
15 Q   In general would you expect the income or   05:09PM
16 price elasticity from a non-parametric analysis to
17 be the same as those from a parametric analysis?
18 A   Not necessarily, but if the results are robust
19 across the complete range, including the
20 intermarginal effects, I would expect them to be   05:10PM
21 qualitatively consistent.
22 Q   Well, depending on the parametric functional
23 form, it can happen if the price and income
24 elasticities are constant; is that correct?
25 A   Could I have the question back, please?   05:10PM

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1   (Whereupon, the court reporter read
2 back the previous question.)
3 A   No. It depends on the functional form. If
4 you impose the condition that elasticity is
5 constant, you can do that through the specification   05:11PM
6 of the parametric formulation and impose that
7 condition, but that may be a violation of the sample
8 data, namely the elasticity may not be constant. It
9 depends on the mathematical form that you specify.
10 Q   Do you know if any of the 46 studies   05:11PM
11 identified in Appendix 1 imposed that restriction?
12 A   That the elasticities are constant over the
13 full range?
14 Q   Yes.
15 A   For those studies that used a log-log form,   05:12PM
16 yes. For those that did not, no.
17 Q   Am I correct that you would expect the price
18 and income elasticities coming from a non-parametric
19 analysis to move around in value?
20 A   Yes, but not in the qualitative sign.   05:12PM
21 Moreover, in a parametric estimation that does not
22 impose the constant elasticity. I would expect that
23 to move around as well, depending on the setting on
24 the explanatory independent variable.
25 Q   Okay. I'm handing you Exhibit 25, which is a   05:13PM

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1 document entitled Non-Parametric Estimation of Exact
2 Consumer Surplus and Deadweight Loss by Jerry
3 Hausman and Whitney Newey. I'd like to turn your
4 attention to Page 1462.
5 A   1462?   05:14PM
6 Q   If you want to familiarize yourself with the
7 last paragraph on Page 1461.
8 A   1461?
9 Q   Yeah.
10 A   Thank you.   05:14PM
11 Q   Actually let me move you up a little bit,
12 halfway down to Figure 2 through 4.
13 A   I do.
14 Q   Take a moment to read those two paragraphs.
15 A   I've read that paragraph. Is there a question   05:15PM
16 pending?
17 Q   All right. So in that paragraph that begins
18 Figures 2 through 4, six lines down, there's a
19 sentence that begins there are; do you see that?
20 A   Just bear with me one second. Say that again.   05:16PM
21 I'm sorry.
22 Q   In the paragraph that begins Figures 2 through
23 4 --
24 A   Uh-huh.
25 Q   -- on Page 1461, six lines down --   05:16PM

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1   A   Okay.

2   Q   — there's a statement there, there are

3 interesting differences between the parametric and

4 non-parametric estimates with the non-parametric

5 estimates having a much more complicated shape than   05:16PM

6 the parametric ones. The kernel and spline

7 estimates generally have a similar shape. Do you

8 see that there?

9   A   I do.

10 Q   So if you turn to the next page and look at   05:16PM

11 Figure 2, the Figure 2 gives a parametric demand

12 function for gasoline, does it not?

13 A   Yes.

14 Q   And Figures 3 and 4 on the following two pages

15 give parametric — excuse me, non-parametric demand   05:17PM

16 functions for gasoline; isn't that right?

17 A   Figure 3 and 4 you said?

18 Q   Yes, uh-huh.

19 A   Yes.

20 Q   And this shows that not only is the price   05:17PM

21 elasticity varying but it varies non-monotonically,

22 isn't that right?

23 A   Not in all cases, no, it's not right.

24 Q   Okay. In which case is it not right?

25 A   With respect to the spline estimate with six   05:18PM

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1 knots, except that the very extreme, it is elastic

2 over a particular range, the Epstein inelastic, and

3 it satisfies the law of demand until you get to very

4 extreme levels on the quantity.

5 Q   Okay. In Figures 3 and 4, other than the   05:19PM

6 spline estimate at six notes, do you agree that not

7 only is the price elasticity varying but it varies

8 non-monotonically?

9 A   With the kernel estimate for Sigma 2, yes, at

10 the extreme ranges on quantity, and the same thing   05:19PM

11 with regard to the kernel estimates for a Sigma of

12 1.9. With respect to the Sigma 1.6, that kernel

13 estimate, yes, indeed, over much of the range. It's

14 non-monotonic, but he's comparing it against a

15 parametric estimator in which the assumption is   05:20PM

16 imposed that the elasticity is constant.

17 Q   Well, one could say that price elasticity

18 varies erratically; correct?

19 A   With regard to what? Certainly not on the

20 parametric estimator that imposes the assumption   05:20PM

21 that it's constant. In your Figure 2, it's not

22 going to be erratic because you've imposed the

23 assumption that it's constant.

24 Q   But that is typical with non-parametric

25 estimation, is it not?   05:21PM

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1   A   What is typical?

2 Q   That price elasticity varies erratically.

3 A   Depends on the facts. Not necessarily.

4 Q   Okay. I'm told we need a tape change again,

5 and if we could make this brief, make this break   05:21PM

6 brief, I would be grateful.

7   VIDEOGRAPHER: We are off the Record. The

8 time is 5:21.

9   (Following a short recess at 5:21 p.m.,

10 proceedings continued on the Record at 5:28 p.m.)

11   VIDEOGRAPHER: We're back on the Record.

12 The time is 5:28 p.m.

13 Q   Dr. Rausser, I noticed you have a binder to

14 your right and it's open to a document entitled

15 Water Quality in Oklahoma. I believe the date is   05:29PM

16 2008. Can you tell me what that is?

17 A   Yes, I can. This is those sites that are

18 classified as — I — are we finished with this?

19 Q   We are.

20 A   This is from the Oklahoma Department of   05:29PM

21 Environmental Quality, and it gives the list of

22 sites that are aesthetically impaired, and it

23 provides a little bit of detail with respect to each

24 of the water bodies, their location and the source

25 of that impairment or the potential cause of that   05:30PM

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1 impairment.

2 Q   And you were making a reference to your

3 report. If you could turn my attention to where

4 you're referring to.

5 A   Yes. I was looking at footnote — the   05:30PM

6 footnote at the beginning of Section 3 on Page 21.

7 Q   So Footnote 8?

8 A   Yes.

9 Q   Okay, and is that document that you have to

10 your right a document that was produced in your   05:30PM

11 considered materials?

12 A   It's my understanding that it was, yes.

13 Q   Okay. If you don't mind —

14 A   You want me to take out?

15 Q   The document is fine.   05:31PM

16 A   Just the one document?

17 Q   Yes, please. Okay. I'd like to make this an

18 exhibit if we could or we could make a photocopy of

19 it if you wish to retain the original, your choice.

20 A   I'd like a photocopy if I could but —   05:32PM

21 Q   Why don't we make this original the exhibit

22 and we'll provide you with a copy. Is that fair?

23 A   Fine.

24 Q   We'll mark this as Exhibit 26, and then if you

25 could just state for the Record what that is.   05:33PM

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1 A   Yes. This, as I indicated, is sourced with
2 the Oklahoma Department of Environmental Quality,
3 and it's prepared pursuant to Section 303(d) and
4 Section 305(b) of The Clean Water Act.
5 Q   That's all I have on that exhibit. Is that   05:33PM
6 funny?
7 A   I was just waiting for a — Michael was
8 passing you questions. I thought there was at least
9 four or five questions waiting for me. I was
10 disappointed.   05:34PM
11 Q   Well, it's late in the day, so — Dr. Rausser,
12 what is your hourly rate on this matter?
13 A $650 per hour.
14 Q   And has that been true for the duration of
15 your work on this project?   05:34PM
16 A   Yes. My rate is different than that, but once
17 an engagement is entered into, the rate remains as
18 it was at the initiation stage, and I began, I
19 think, this investigation in 2004.
20 Q   Okay, and what is your hourly rate with   05:34PM
21 respect to deposition testimony?
22 A   It's the same.
23 Q   How about trial testimony?
24 A   Same.
25 Q   Okay. How many hours have you spent on this   05:34PM

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1 case?
2 A   I'm having difficulty with this case because
3 earlier today you asked me about whether my prior
4 testimony had been produced. I thought you were
5 referring to this case as in the damage analysis,   05:35PM
6 and when you ask me now hours, are you asking me
7 hours with respect to just the damage analysis or
8 the injury work that we did or the economic
9 consequences that would result from an injunction?
10 Q   Let me rephrase my question. How many hours   05:35PM
11 have you spent on all issues in this case?
12 A   I'd have to go back and look through the
13 invoices as I indicated. This engagement began, as
14 I recall, in 2004.
15 Q   Do you know how much you have billed in this   05:35PM
16 matter?
17 A   No.
18 Q   Have you done any work on behalf of any of the
19 defendants prior to this matter?
20 A   May I see a list of the defendants because I   05:36PM
21 don't recall all of the defendants?
22 Q   Sure. Let me try to think what the easiest
23 place is to find it.
24 A   Would that all be here?
25 Q   Yes, correct.   05:36PM

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1 A   Fine. I've done work in opposition to some of
2 the defendants or at least with regard to a merger
3 analysis involving Tyson Foods acquiring Iowa Beef.
4 I was asked by the DOJ to evaluate the merger
5 effects of combining the two companies with regard   05:37PM
6 to any pricing effects that might take place.
7 Q   Prior to this matter, have you done any
8 work --
9 A   I'm sorry. I'm still not finished with my
10 response to your question.   05:37PM
11 Q   I'm sorry. Go ahead.
12 A   I'm not. I had done some work jointly with
13 regard to supporting Tyson Foods and Foster Farms on
14 some regulations with regard to the certification on
15 freshness of poultry at the retail level, and   05:38PM
16 there's been some other cases in which I've been in
17 opposition in particular to Cargill in an antitrust
18 matter.
19 Q   Anything else?
20 A   No.   05:38PM
21 Q   Okay. Regarding the work you did on behalf of
22 Tyson and the regulations that you mentioned, what
23 time frame was that in?
24 A   1994, 1995.
25 Q   Okay. I believe you testified earlier today   05:38PM

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1 that when you did the work — I'll call it the
2 Dallas study. Do you know what I'm referencing?
3 A   Yes.
4 Q   That the law firm of Sidley & Austin was
5 involved?   05:39PM
6 A   Yes.
7 Q   And you did work for them?
8 A   Yes.
9 Q   How many different matters have you worked on
10 for the law firm of Sidley & Austin?   05:39PM
11 A   Across the board?
12 Q   Yes.
13 A   Sidley & Austin was involved in the branded
14 drug antitrust litigation, and I was the joint
15 defense expert for damages. Another antitrust case   05:39PM
16 involving commercial tissue, I was the expert on
17 class certification and economic damages, and Sidley
18 & Austin was representing one or more of the
19 defendants. In another case involving a
20 pharmaceutical drug, Nexium, I was engaged by Sidley   05:40PM
21 & Austin to evaluate the common impact and economic
22 damages resulting from plaintiff's allegations of
23 fraud on the market, and what I've just described to
24 you covers the last 20 years that I can recall as I
25 sit here.   05:40PM

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1 Q   Okay. So in each of those matters you did
2 work for the law firm of Sidley & Austin?
3 A   And other law firms as well because most of
4 those were joint defense groups.
5 Q   Okay.   05:41PM
6 A   Except for the Nexium case. That was simply
7 Sidley & Austin.
8 Q   Okay. The branded drug case, what time frame
9 are we talking?
10 A   That case went on forever. I started in 1993   05:41PM
11 I think was my first engagement, and it stretched
12 all the way out to 2002 involving some opt-out
13 plaintiffs. I think it completed in 2002.
14 Q   And the Dallas litigation, what was the time
15 frame there?   05:42PM
16 A   '96 approximately.
17 Q   And how about the commercial tissue case?
18 A   1999, perhaps '98.
19 Q   And the Nexium case?
20 A   Recent. That would have covered the years   05:42PM
21 2004 through 2008.
22 Q   And how about the case involving the fraud on
23 the market?
24 A   That's one and the same. The Nexium is fraud
25 on the market.   05:42PM

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1 Q   Okay. Thank you. What about the other law
2 firms involved in this case working on behalf of the
3 defendants; have you done work for those law firms
4 prior to this matter?
5 A   May I see a listing of the law firms in this   05:43PM
6 matter?
7 Q   I'm trying to think of where one would be on
8 this table. Let's start with Faegre & Benson.
9 A   Not that I recall.
10 Q   How about Kutak Rock?   05:43PM
11 A   No.
12 Q   Earlier in the day we talked about some
13 earlier CV studies that you had been involved in.
14 Hold on. Let me start over. Earlier in the day we
15 had discussed some earlier CV studies that you had   05:44PM
16 been involved in. Do you recall that?
17 A   I do.
18 Q   Were any of those CV studies the subject of
19 court testimony?
20 A   For those CV studies that were done that were   05:44PM
21 related to litigation disputes, my recollection is
22 that all of them settled prior to any courtroom
23 resolution. It was resolved prior to that, and the
24 remaining studies, as I indicated, were consulting
25 studies not involving litigation.   05:45PM

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Q   Okay. Dr. Rausser, I have no further
questions. I appreciate your time today.
A   Thank you.
     MR. DEIHL: I have one follow-up question
unless someone else does.   05:46PM
          CROSS EXAMINATION
BY MR. DEIHL:
Q   Earlier this morning, Dr. Rausser, you
testified that you had not produced your list of
litigation and deposition testimony that you've been   05:46PM
involved in in connection with this report. Have
you produced that testimony in connection with this
lawsuit in another report that you produced in this
lawsuit?
A   Yes. With regard to the report that I was   05:46PM
engaged to conduct an analysis with regard to the
proposed injunction and the economic consequences, I
produced with that report my prior testimony over
the course of the last four years, but I didn't
produce that with this report, but it certainly has   05:46PM
been produced with regard to this litigation.
     MR. DEIHL: Thank you. I have nothing
further.
     MR. MIRKES: I have no questions.
     MR. DEIHL: Does anyone else on the phone?   05:47PM

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          MR. SANDERS: No questions for Cal-Maine.
          VIDEOGRAPHER: This concludes this
deposition. We now off the Record. The time is
5:47 p.m.
          (Whereupon, the deposition was
concluded at 5:47 p.m.)

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SIGNATURE PAGE

I, Gordon Rausser, PhD, do hereby certify that the foregoing deposition was presented to me by Lisa A. Steinmeyer as a true and correct transcript of the proceedings in the above styled and numbered cause, and I now sign the same as true and correct.

WITNESS my hand this _____ day of _____, 2009.

_____
GORDON RAUSSER, PhD

SUBSCRIBED AND SWORN TO before me this _____ day of _____, 2009.

_____
Notary Public

My Commission Expires:

_____

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CORRECTIONS TO THE DEPOSITION OF
GORDON RAUSSER, PhD
(Desvousges/Rausser)
PAGE AND LINE NUMBER   CORRECTION

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C E R T I F I C A T E

STATE OF OKLAHOMA   )
) ss.
COUNTY OF TULSA   )

I, Lisa A. Steinmeyer, Certified Shorthand Reporter within and for Tulsa County, State of Oklahoma, do hereby certify that the above named witness was by me first duly sworn to testify the truth, the whole truth and nothing but the truth in the case aforesaid, and that I reported in stenograph his deposition; that my stenograph notes were thereafter transcribed and reduced to typewritten form under my supervision, as the same appears herein.

I further certify that the foregoing 170 pages contain a full, true and correct transcript of the deposition taken at such time and place.

I further certify that I am not attorney for or relative to either of said parties, or otherwise interested in the event of said action.

WITNESS MY HAND AND SEAL this 5th day of June, 2009.

_____
LISA A. STEINMEYER, CRR
CSR No. 386

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A

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